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CLINICAL LECTURE.

TRAUMATIC CROSSED SPINAL HEMIPARAPLEGIA; POISONING WITH BISULPHIDE OF CARBON.[1]

BY PROFESSOR J. M. CHARCOT,
PARIS, FRANCE.

Traumatic Crossed Spinal Hemiparaplegia.

Gentlemen: The patient who will serve for to-day's demonstration is a young man, twenty-four years of age, a slater by occupation. In appearance he is tall, thin, has a very agreeable face, and woman-like behavior. Notwithstanding this, he seems to have been very early in his life attracted by persons of the opposite sex; and it was in some affair with a woman that he became a victim of the accident the consequences and remains of which we shall study together to-day.

[1] Delivered at the Salpêtrière, Paris.

The accident, to which I have just now alluded, seems to have made a deep impression on his mind; so much so, that to keep the remembrance of this fact he had himself tattooed, at the upper and internal part of his left forearm, with the words "Death to unfaithful women." To the unfaithful women alone does he address himself; hence he seems to be still less pessimistic than the great poet, who generalized too much when he said, speaking of woman in general, that she was "false as water."

After this short digression, let us return to our subject. It was in March, 1880, when this man was only sixteen years old, that he had a quarrel with Italians, and at that time was struck from behind with a knife, which seems to have penetrated very deeply into the upper portion of the trunk, at the base of the neck; there still remains to-day, opposite the second and third dorsal vertebræ, a linear cicatrix about an inch in length.

You are probably all aware of the results of wounds of the spinal cord, especially those of the kind exemplified by our patient.

A man is leaning forward, when his adversary strikes him from behind in the line of the spinal column, and more often opposite the third and fourth dorsal vertebræ—as shown by the histories of the cases of Müller, Salmon, Joffroy—very rarely further down, as in the case of Vigués, in the dorso-lumbar region. The knife penetrates the intervertebral space, and, strange to say, the spinal cord is more often wounded by a hemi-lateral section on the side opposite to that at which the knife penetrated the skin. In this patient, the knife penetrated on the right of the spinal column, and according to the symptoms presented the lesion has reached the right lateral half of the spinal cord; you all know that such lesions are very dangerous, and usually end fatally in from eight to fifteen days after the traumatism. Our patient, as you see, seems to have been very fortunate, but I believe that in his case there has not been a complete left hemi-lateral section of the cord, but only a puncture; the knife probably penetrated only the middle of the left half of the cord by its point; and if at the beginning the symptoms pointed to an hemi-lateral section it is because a limited inflammatory process rapidly developed around the sectioned part—a true left transverse hemi-lateral myelitis—equivalent, as regards the production of a paraplegic form, to an absolute section. You will soon say to me, when I demonstrate to you the paraplegic phenomenon, that the spinal symptoms have immediately been carried to their maximum, with all their special characters, and hence one is entitled to think that a consecutive inflammatory process necessitates some time for its developing?

This is all true. My answer will be to refer to Brown-Séquard, who has shown that in hemi-lateral lesions of the spinal cord a simple puncture in one of the halves of the organ is equivalent, as regards the symptoms immediately observed, to a complete section; the logical difference being that the symptoms produced by the puncture are of a more transitory character; while those resulting from a section are permanent.

In our patient the first symptoms observed must be attributed to the puncture, while the later ones are to be attributed to an hemi-myelitis consecutive to the traumatism. As to the immediate effect of the injury, we have to rely on the testimony of the patient; he says he remained conscious for a long time, and did not immediately know that he had received a wound in the back; he remembers that he fell immediately, his left leg felt as if broken, as if it had disappeared. He was helped to get up, but his left leg could not hold him up, and he fell again.

From this account, the motor hemi-paraplegia was instantly produced, as a consequence, according to our hypothesis just stated, of a puncture of the cord. The patient was soon after his accident taken to the hospital, and then for the first time he became unconscious. He mentions the fact that he suffered at the time from retention of urine, which necessitated the use of the catheter for several days in succession. This is corroborative of our statement as to the existence of a myelitic process, which at one time had probably extended beyond the limits of the left lateral half of the cord; for this symptom does not belong to simple traumatic hemi-lateral section of the cord. An established fact is that when the patient awoke the left lower extremity was completely inert, paralyzed, while the right lower extremity had perfectly free movements, except that the sensation was entirely gone; this condition is Brown-Séquard's syndroma. The patient also remembers the diagnosis which was often repeated by the attending surgeon, namely, lateral hemi-section of the spinal cord.

Let me refer to what is called "Brown-Séquard Syndroma" by most physicians, while a very few call it Brown-Séquard's disease. I much prefer the term syndroma, because we have to deal not with a disease, properly speaking, but with a series of symptoms which can belong to different varieties of diseases. For instance, besides hemi-section, syndroma will present itself in myelitis, in intra- or extra-spinal tumors, syphilitic or otherwise; in tuberculous meningitis, affecting a lateral half of the cord, or producing a compression of the same.

In animals, our illustrious friend Brown-Séquard has shown that a complete hemi-lateral section of the spinal cord produces invariably a syndroma, the clinical characters of which have been well described by him under the title of spinal hemi-paraplegia with crossed hemianæsthesia. He has also later demonstrated that the same occurs in man, precisely in the same manner as it does in animals. Let us now examine the symptomatology of the affection under consideration, and let us suppose, as in our case, that the left half of the cord has been sectioned.

On the left side, which corresponds to the spinal lesion, we observe, first, a complete motor paraplegia of the lower extremity, a fact already described by Galien; second,

the skin of the left extremity is in a state of hyperæsthesia, and this hyperesthesia varies, going up toward the abdomen, according to the height of the spinal lesion, and is limited on this same side by a horizontal line—there is also a loss of muscular sensation; third, there is a certain increase in the temperature; fourth, more or less rapid muscular atrophy, with degenerative reactions; fifth, sometimes there are trophic articular changes, such as arthritis of the knee joint.

On the right side, the one opposite to the section, we observe first, cutaneous anæsthesia of the whole lower extremity, going up the trunk or abdomen, where it is limited by a more or less straight horizontal line; second, there is no increase of the temperature on that side; third, no traces of motor paralysis, of atrophy, or of increase in the reflexes; fourth, there are sometimes observed some cutaneous trophic troubles, such as an eschar in the gluteal region, a bed sore.

No vesical symptoms are manifest—this is the description of a recent case, of course; if the disease has been allowed to run its course for some time, we must anticipate a certain variability in the symptomatology, especially in those cases in which the patient has nearly entirely recovered the motor function in his paralyzed limb, such as will be encountered in those who have only suffered from a punctured wound, or from a temporary compression of one side of the cord; for it is clear, that only a temporary trouble would admit of the retrocession of these different symptoms, and a return to the normal state.

In our patient we still observe to-day the following state: On the left side, no trace of motor paralysis of the inferior extremity is to be found. This paralysis is said to have been a complete one for the first fifteen days following the accident; after which the motor power gradually returned; when he left the hospital, eight weeks after the accident, he felt a certain annoyance in that extremity, which lasted for nearly three years, but which now has entirely disappeared. As regards the temperature of this extremity, to-day it is even somewhat lower than the other; there is no cutaneous hyperæsthesia. The knee jerk is now quite exaggerated; there is no ankle clonus. The left extremity is very much atrophied, as is shown by the following figures: the middle of the left thigh gives a circumference of 39 centimeters (about 12 inches), while the same region of the right thigh gives us 43 centimeters (about 13 inches); the middle of the left leg gives us 26 centimeters (about 8 inches), while the right measures 33 centimeters (about 10 inches); no reaction of degeneration has been observed by Dr. Vigoroux, the medical electrician of the Salpêtrière, hence we must admit that this atrophy has been the consequence of the extension of the myelitic process to the anterior horns of the gray substance on the side of the lesion, yet has not produced complete destruction of these nerve cells.

On the right side there have never been observed any disturbances of motion. The reflexes are normal. There is no change in the muscular sensation, but there exists a great change in the sensibility of the skin. True anæsthesia is not really found in these cases, it is only an equivalent disturbance due to the existence of a spinal compression or of an organic lesion of the posterior columns. This I have called the phenomenon of dysæsthesia, which is noticed as follows: if you pinch your patient, he will feel it but will record the sensation after a striking delay, and even then without locating precisely the place where the excitation was applied. Moreover, the sensation becomes diffused above and below the excited point. Heat and cold when applied are also not recognized as such, but give rise to this diffuse sensation just mentioned. Let me remark here that this phenomenon of dysæsthesia, as far as we know, belongs only to organic spinal lesions and is not combined with the anæsthesia of hysterical patients. You see how easy it is, by the aid of an hypothesis, to interpret the existence of the remains of a spinal hemiparaplegia with crossed anæsthesia.

One point, however, must have struck you, and that is that the line which limits the diæsthesic anæsthesia does not extend as high as we might expect, the wound having been inflicted opposite the third and fourth dorsal vertebræ.

In the case of Müller, which is very similar to our case, the line went up as far as the level of the axilla; while in our patient it extends only to Poupart's ligament in front and to the lumbar region behind; this is certainly a singular anomaly; yet we must remember that Müller's case was a recent one, the patient having died in fifteen days, while our patient was injured eight years ago, which makes us admit that with time, there has been a progressive restoration of the injured parts of the spinal cord.

In our patient there is a very interesting example of spinal hemi-paraplegia with crossed anæsthesia, as a result of a traumatic lesion of the spinal cord. I would stop the examination of this case here, but I cannot overlook the fact that this patient was addressed to me by one of my ablest students in neuro-pathology, as an example of traumatic hysteria. The reasons put forward for this opinion by our colleague refer to the anomalies presented by this man, as regards, for instance, the spinal hemi-paraplegic syndroma; or again the limit of the anæsthesia on the right side, too low for an injury of the cord opposite the third or fourth dorsal vertebra.

In our lesson to-day, I have explained to you the reasons for these anomalies. Our colleague thinks that all the phenomena of spinal hemi-paraplegia have developed in this man as a result of suggestion, while he was in a peculiar mental state just after his accident, which could be compared to the somnambulistic period of hypnotics. He thinks that the lesson made before his bed on the syndroma of Brown-Séquard by the attending surgeon, was the origin of the suggestion. This we cannot admit. You all know that in cases of hystero-traumatic epilepsy, paralysis with or without anæsthesia following a local injury does not appear on the spot, does not present itself immediately; this fact is very important; in our case, however, the observation which was taken at the hospital at the time of his admission for the injury mentions the fact that the patient was already in a state of paralysis.

Although I reject absolutely the intervention of hysteria in the production of the syndroma of Brown-Séquard in our patient, I would not say that he is absolutely free from hysterical phenomena, for he has certainly shown traces of this affection; he even to-day, has applied to the hospital, not for his nervous trouble, but for coughing and spitting of blood. A careful physical examination showed him to be in a perfect condition, and we have admitted that these hemorrhages belong to the class of neuropathic hemorrhages so common amongst hysterical subjects. In respect to his neuropathy, we must not overlook his hereditary tendencies; his father is actually in an insane asylum, and his grandmother on the maternal side was subject to hysterical attacks.

Poisoning with Bisulphide of Carbon.

Most of you have probably heard of the manufacture of bisulphide of carbon; you know that the manufactures in which this preparation is used furnish us a certain number of patients who present symptoms of a nervous character.

Duchenne de Boulogne and Bouchardat a long time ago called attention to this intoxication; yet Delpech, in 1863, is the one who has correctly defined the train of symptoms which characterize the sulphide of carbon neurosis.

This poor man before us is a typical example of this intoxication; he is sixty-three years of age, has been a very vigorous man, but lately he has failed in strength. The symptoms which bring him before us have appeared for the past six weeks or two months. His family history shows no traces of nervous inheritance; he also seems to have been a sober man and is leading a regular life.

During his youth he lived in the country as a shepherd; he never learned to read, hence it is not intellectual work which has injured him. I have just said, a moment ago, that he was a sober man; we have a proof of that, for he has been working for a very long time in a factory where bisulphide of carbon is prepared, and in this business no drinking man is taken as a workman; and, in addition, we find no signs which would indicate that he drinks.

He has been in his present occupation since 1872, but he has not worked steadily, and occasionally he returned to his first occupation, that of digging. Still he had continuously worked in the factory for four months, when one day, while cleaning a bucket which was to contain the bisulphide of carbon, he presented the following symptoms: After having felt a sensation of suffocation, he had a feeling of heat in his scrotum, and fell without uttering a cry, as if he had had a cerebral apoplexy. His colleagues thought him asphyxiated, and they assert that during his unconsciousness, which lasted half an hour, no convulsions were observed. Finally he came to himself again and was able to walk home. The first two days after this accident, which he spent in his room, he does not remember anything of; on the third day, however, he felt a sensation of numbness, and on the following day, a well-marked paralysis had developed. That same day the right upper extremity was taken in the same way, but in a less severe degree.

Gentlemen, this hemiplegia which rapidly followed the apoplectiform attack was the first revelation of his nervous affection, the character of which we shall now define.

I shall ask our patient to stand up and to make a few steps before you, but do not forget that his hemiplegia dates back six weeks. Remark that while the patient walks, he drags after him his paralyzed lower extremity, as if it were an inert body. Note well that the paralyzed extremity always touches the ground, the patient does not attempt to lift it up at each step he makes You will find no trace of the movement of circumduction, which always exists in an old hemiplegia of organic origin; this fact will not be overlooked by those of you who are acquainted with it. If we now turn our attention toward the left upper extremity, we find that it is hanging powerless, very weak, and slightly deformed, probably because the fingers are extended straight, producing a right angle with the palm of the hand. We have here a spasmodic contraction, for we encounter an elastic resistance when we try to move the fingers in one way or the other, in flexion or in extension. We have here a spasmodic rigidity, but it is not the attitude of the hooked fingers which is observed in the hemiplegia of organic origin accompanied by contracture. By the dynamometer we obtain, for the paralyzed left hand, a pressure of 11 kilogrammes (29 pounds 4 ounces Troy), while the normal right one gives us 60 kilogrammes (160 pounds Troy). No increase of the reflexes is observed either in the upper or lower extremities, which already shows us that we have not to deal here with an ordinary hemiplegia of organic origin.

The next symptom observed is that cutaneous sensation is deeply affected, all along the paralyzed upper extremity, and also all along the corresponding lower extremity; you already know that this symptom is very rare in ordinary hemiplegia, we only find it when the lesion involves the posterior portion of the internal capsule, and even then sensation is never so much reduced as it is in this man. There is also a remarkable contrast between the cutaneous sensibility which is deeply involved and the motion, which, on the contrary, is not completely abolished; this again is not found in organic hemiplegia. Anæsthesia is not only present in the paralyzed extremities but is also found over the left half of the body, in front and posteriorly, and on the half of the head and face; and this anæsthesia involves not only the skin but also extends to the deeper portions, for the articulations can be twisted and pulled upon most energetically without the patient feeling it; he also is not aware if we displace his limbs, and cannot determine what position is given to them.

With these different facts just developed, those of you who are expert in the matter will not fail to recognize that we have to deal here with a case of hysterical hemiplegia. Is this man, who appears broken down, quiet, prostrated, showing signs of precocious senility—is he an hysterical patient? Yes, gentlemen, and those who are acquainted with the patients we see in this clinic, will not doubt it one moment.

Let us now establish the diagnosis of hysteria. I shall not return to the symptoms already mentioned: total deep and cutaneous sensitive hemi-anæsthesia, paralysis of the upper and lower extremities with loss of muscular sensation, absence of rigidity and absence of increase of the reflexes, while this hemiplegia is already more than a month old—these phenomena are already sufficient, but we have other additional symptoms.

In the first place, we remark that the inferior facial nerve is not involved; hence we have not a true hemiplegia, but an associated monoplegia. The convulsive movements of the right upper lip are not due to facial paralysis, but to facial hemispasm, which corroborates the diagnosis of hysteria. A remarkable fact is that you will find the facial hemi-spasm well indicated in several observations of poisoning with bisulphide of carbon, and especially in two observations of Mr. Delpech; but certainly the hysterical nature of these spasms has not been suspected. To the glosso-labial spasm we can add other strengthening symptoms; there is a well-pronounced contraction of the visual field on the right—the paralyzed side, while on the left the visual field is normal. Remark this fact of the contraction of the visual field on one side only, as it is rare. I have just said "permanent contraction," because such contractions are alone characteristic of hysteria in certain diseases. No dyschromatopsia, but a well-marked monocular diplopia is observed in this case; also an insensible pharynx; hearing power on the right side is very much reduced; taste is absent on the right side of the tongue. After all these classical symptoms of hysteria, it is not necessary to hunt further. Certainly our man has no convulsive attacks; we find no hysterical or hyperæsthetic spots; but these symptoms are not necessary to constitute the hysterical disease.

One word on the mental state of our patient. If I do not admit that there are

as many distinct kinds of hysteria as there are different origins giving rise to the affection, yet I admit that hysteria presents different forms, different varieties. A certain quantity of alcohol will produce a different drunkenness in different individuals; one will become very bright, full of fun; another, on the contrary, will remain very quiet, stupid. Our patient was very bright before his accident, and since then he has become quiet, morose, thinks himself worthless, and is quite discouraged. In hysterical men you will often find a condition of mental depression, and will also hear of their having most terrific dreams. This fact is also observed in our present patient; he is pursued nearly every night since his accident by lions, wolves—all sort of imaginary animals; his last dream, of which he spoke to us this morning, was that he found himself on the top of a mountain, and water was coming up gradually on all sides to drown him; he awoke in a state of great anxiety. If I insist upon these frequent psychical changes observed in hysteria in men, it is because some persons have been tempted to consider it as belonging to a traumatic neurosis, and having even a character separating it from true hysteria. This is not so. These same characters belong absolutely to the hysteria of man, and are found not only when the disease originates from a traumatism or nervous shock, but also when the affection is developed in consequence of the action of a toxic cause, saturnine or sulpho-carbon—or even under any cause. This particular mental state does not belong to a special form of hysteria, but is found in every variety of hysteria.

Having shown you that all the symptoms presented by our patient belong to hysteria, shall I say that hysteria is the disease observed by Delpech in so many patients, workmen in bisulphide of carbon factories? This would be going too far; yet we find in all his observations certain undeniable symptoms of this neurosis, such as the glosso-labial spasm, suffocation, *globus hystericus*, peculiar sensations in the genital organs, anæsthesias, hyperæsthesia, contractions, etc.

From our present knowledge we can safely say that most of the authors who have written on the sulpho-carbon intoxication have observed hysteria in some of its manifestations; hence hysteria would be the disease originating most frequently as a result of intoxication by the vapors of bisulphide of carbon. Hereafter then we must study more closely the relation existing between such a disease and hysteria. Amongst the observations recorded, there are manifestly certain symptoms which do not belong to hysteria; such are the acute and sudden pains which patients complain of as being located in their extremities, while at the same time the walking is uncertain. These patients have been looked upon as suffering from locomotor ataxia (sulpho-carbon ataxia); but I think we most likely have to deal with a peripheral neuritis, similar to the one observed in other intoxications, such as those in beri beri, or those arising from the use of alcohol; and that the motor troubles of the extremity resemble much more those resulting in the walk of the "stepper,"[1] than those of the tabetic patient. I am certain these troubles have no relation to hysteria.

Finally, we can say that there exist certain affections of the nervous system, which are due entirely to the action of vapors of bisulphide of carbon. Hereafter we must try to be more careful in our observations, so as to be able to differentiate correctly the symptoms belonging to hysteria from those which belong to the intoxication. Now that the patient has left the room, let me say one word in regard to the prognosis. This man will be cured with difficulty, this being the rule in hysteria of the male adult. This disease will last, notwithstanding our most careful treatment, several months, even several years. Suggestion after having produced the hypnotic state, cannot be employed on this patient, he not being capable of hypnotization; but suggestion in the awakened state (*état de veille*) can be employed with success against his paralysis. In addition to this treatment, the general tonics can be recommended; and finally, we must ask our patient to give up his occupation in a bisulphide of carbon factory.

—The commencement exercises of the Meharry Medical Department, and the Dental Department, of Central Tennessee College were held at Nashville, Feb. 22. The exercises marked the thirteenth anniversary of the Medical Department and the third of the Dental. This is the only Dental school for colored persons in the United States, and the Medical College is one of two in the country.

[1 Prof. Charcot probably means by the "walk of a stepper," a gait in which the feet are raised high off the ground (as in locomotor ataxia), but in which there is no exaggeration of their lateral or outward sway, and no irregularity in their rise and fall.—Editor of the REPORTER.]

COMMUNICATIONS.

HEADACHE IN INEBRIETY.

BY T. D. CROTHERS, M.D.,
HARTFORD, CONN.
SUPERINTENDENT OF WALNUT LODGE.

Recently I have seen several cases of inebriety, in which a history of early paroxysmal headache was prominent. The frequency of this symptom, in widely differing cases, has attracted my attention, and is evidently of much clinical importance in the prognosis of such cases The clinical histories of some cases will make this fact more apparent.

Case I.—John B., a steady drinker of twenty years' duration. His parents were both temperate, but his grandfather on his mother's side was a chronic inebriate. When about six years old he suffered from severe headaches lasting several hours, and reappearing every few weeks. They continued for many years, and resisted all treatment, becoming more and more severe in intensity and duration. At puberty they disappeared for two years, then returned. They seemed to follow from the exhaustion of overwork as a bank-clerk. From this time down to the age of twenty-four, he had constant recurrences of these attacks. Often they would be preceeded by great exhilaration and buoyancy of feeling, then suddenly merge into severe frontal headache, and later the entire top of the head would be sensitive, painful and very hot. This condition would last for eight or ten hours, then subside within a few hours and be followed by a profound slumber.

At twenty-four years of age, he began to use wine on the table, and within a year drank strong liquors. The headaches ceased altogether from this time and the use of spirits was kept up until he came under my care. Three weeks after admission he complained of great depression of both mind and body, lasting for several hours. These attacks of depression continued, only growing less in intensity, until he was discharged. His history since then has not been obtained.

Case II.—William H., a periodical inebriate, began to use spirits while in the army. His father drank to excess at long intervals up to his death. His sister was hysterical and died of consumption early in life. The patient began to suffer from severe headaches soon after puberty.

These attacks came on unexpectedly and without any apparent cause, and after several hours of agonizing pain, ended in sleep, from which he awoke free from headache and well. They were called "bilious" attacks, and were variously treated, but with no results. In the army the surgeon ordered large doses of spirits and quinine, and from this time the headaches disappeared. He became an inebriate, and twenty years after came under my care and recovered and was discharged a year later.

Case III.—B O., an irregular inebriate, who had been a lawyer, politician and active man of the world. He drank to excess at irregular times and places. His mother died of consumption soon after his birth. His father was a nervous, passionate man, who died of apoplexy. He had headaches from infancy; sometimes they were severe and he had to go to bed, at other times he could keep at his business.

At twenty years of age these headaches were so severe that he was confined to bed for a week after the attacks. They came on several times every year, and resisted all treatment. He had been an abstainer, for the reason that beer and spirits produced intense nausea. When about twenty-four he was given large quantities of brandy for this headache, and ever after he could use it. When the pain subsided he used spirits largely. As he became more addicted to spirits the headaches died away, and for twenty years before admission had not been noticed. A few weeks after coming under my care they returned, but were less severe and continued while he was under treatment. They seemed to be preceded by mental and muscular irritation for several hours, and were followed by great exhaustion.

These three cases are more prominent types of nerve paroxysms preceding inebriety. In many cases there are histories of irregular periods of headaches, occurring before inebriety appeared. In some cases headache appeared first at puberty and was very intense for a time, and then subsided. In others, severe headaches of childhood disappeared at puberty or broke out again in later life, and merged into inebriety. The presence of headache in early life is always a grave symptom of brain exhaustion and neurotic disturbance from heredity. In such cases there is a strong probability that some neurotic disease will appear in later life, from the slightest exciting causes. When these headaches come on later in life, some conditions of profound exhaustion and nerve disturbance are present. It may be stated

as a general fact that a history of severe headache in a case of inebriety is a hint of serious nerve and brain disorder, requiring constitutional treatment. When they appear after inebriety is established, in cases in which there is a possibility of syphilitic infection, specific treatment is required.

When they disappear from the use of spirits the prognosis is grave, especially in those cases in which they return when the alcohol is withdrawn.

In some cases these headaches resemble epileptic seizures, in the suddenness and intensity of the paroxysm, and the irritation and depression which follow. They may be most aptly called "nerve storms," or discharging lesions, of the higher centers. A practical point would be never to use spirits in these cases of paroxysmal headaches, for fear of fixing and developing the graver disorder of inebriety, or some allied insanity.

Moreover, when headache is found to be prominent in the history of inebriety, the case is more serious, and requires more careful study and treatment. In all probability the presence of headache preceding inebriety is only a hint of brain degeneration that may or may not merge into inebriety, depending on some special exciting causes. When headaches follow inebriety, the conditions and causes are complex and grave.

Medical art and skill can do much in both cases. In a case under my care in which the inebriety began with the use of spirits to relieve these paroxysms, Turkish baths broke up these attacks, and the inebriety disappeared as the health improved.

In another case of inebriety in which severe headaches followed the drink storms, rest, improved nutrition, and general tonics, baths, and constitutional remedies resulted in permanent recovery.

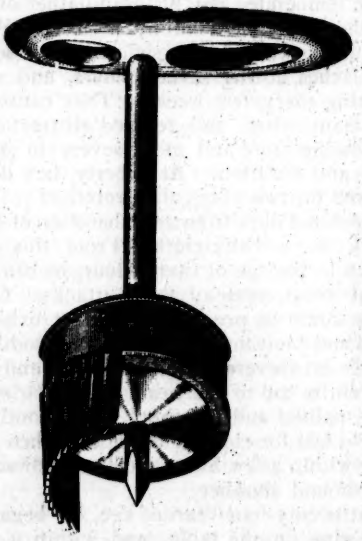
Paroxysmal headaches in childhood and following puberty should always attract attention, and receive careful medical treatment. Narcotics of all kinds are both dangerous and uncertain. The only safe remedies are tonics, nutrients, and all means to build up and strengthen the organism.

—*Science*, Feb. 15, says that Professor Ruata of Perugia is authority for the statement that there are annually in Italy nearly 300,000 cases of typhoid-fever, of which number 27,000 prove fatal. One-third of the persons in Italy who reach the age of forty-five have the fever, and in some districts more than three per cent. of the population die from this one cause.

THE SEGMENT TREPHINE AND AN ASEPTIC TREPHINE.[1]

BY JOHN B. ROBERTS, M.D.,
PROFESSOR OF ANATOMY AND SURGERY IN THE PHILADELPHIA POLYCLINIC.

The frequency with which operations are now done upon the skull and brain has made apparent the need for improvement in our instruments for opening the skull. Seven years ago I published[2] an account of my experiments with the surgical engine, as a means of making openings in the skull; and I still believe it an excellent and safe means of effecting access to the cranial contents. The chief disadvantages are the expense of the engine and its liability in ordinary hands to get out of order. This latter objection held good at least in one hospital with which I have been associated.



The ordinary trephine, either cylindrical or conical, will probably be used much more frequently, therefore, than the surgical engine; hence suggestions to improve its character are not inadmissible. The "segment trephine," described in the *Operative Surgery of the Human Brain*,[3] is, I think, a valuable instrument with which to deepen any portion of the groove surrounding the button of bone to be removed, without cutting along its entire circumference. The skull is often very much thicker in some parts of the area of operation than in others,

[1] Read at the meeting of the Philadelphia County Medical Society, February 27, 1889.

[2] *Philadelphia Medical Times*, 1881-82, xii, p. 206.

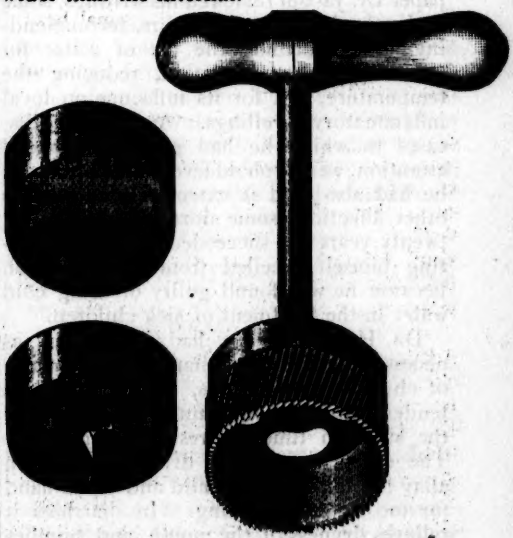
[3] Page 78.

and the ordinary trephine has to be tilted to avoid injuring the cerebral membranes at the points where the skull is thinnest. Tilting is not always easily done when the trephine is large and deeply imbedded in the bone. A "segment trephine," having the same radius of curvature as that with which the operation was begun, enables me to cut more deeply and with great care at any selected part of the groove. The accompanying illustration renders a detailed description of the instrument unnecessary. The cutting edge extends one-third of the circumference, and the centre-pin, not requiring retraction, may be immovably fixed to the head of the trephine. The instrument has no groove in the stem or handle to collect septic matter, and is readily cleaned.

A serious objection to the ordinary trephine is the fact that it is almost impossible to get assistants and nurses to keep the centre-pin, and the tubular stem in which it slides, perfectly aseptic. Indeed, it is difficult, with every intention of perfect cleanliness, to keep the hollow stem of the instrument absolutely clean. I have endeavored to remedy this objection by making the stem solid, and substituting for the ordinary sliding centre-pin a circular block of metal, accurately fitting into the crown of the trephine, with a point upon its lower extremity.

As soon as the surgeon has cut a groove deep enough for the teeth of the trephine to be maintained in position upon the skull, the central block is taken out of the crown of the trephine, and the operation continued as with the ordinary instrument, after retracting the centre-pin. Upon the upper surface of the block is cut a shallow slot, into which fits a slight projection from the upper part of the trephine crown. This compels the block to rotate with the rest of the trephine when the operator is making the first incision into the bone. The trephine itself is made as thin as possible, in order that the groove between the disc of bone removed and the rest of the skull may be very narrow. The button of bone, when replaced, can then be held in position more readily than if the groove is a wide one. I believe that after using a thin trephine, such as this, it at times will be well to stitch the button of bone into position by catgut sutures passed through the periosteum, which may be allowed to remain upon the surface of the disc of bone, and upon the skull adjacent to the trephine opening.

The crown of the trephine must not be too conical, because such a trephine in cutting through the thick skull makes the outer portion of the incision a very wide one. I am inclined to think that a surgeon of even moderate skill never needs a conical trephine to prevent his plunging the instrument into the brain; a cylindrical one should be just as safe in his hands as a conical one. An advantage in having the crown of the trephine slightly conical, when a large instrument is used, is that the instrument is less liable to become jammed in the groove. This annoyance not infrequently occurs on account of irregularities in thickness of the skull, especially when a large surface is included in the trephine. It is more apt to take place, I think, when the groove is made by a cylindrical instrument, which does not make the external aspect of the incision wider than the internal.



The weight of the metal handpiece can be minimized by fenestræ, or by making the handle hollow. It is best to attach the handpiece to the stem eccentrically, as suggested by Horsley, since the hypothenar portion of the palm needs a longer lever than the thenar.

This aseptic trephine, it will be seen, is somewhat similar to the safety trephine of Hopkins,[1] who suggested the use of a cylindrical block instead of a centre-pin, because of the possibility of the surgeon forgetting to withdraw the centre-pin, and, therefore, wounding the dura mater. His device contained a spring to keep the block thrust forward, and was therefore very difficult to clean. In fact, it was not constructed with an idea to facilitate asepsis, but to prevent careless puncture of the dura.

[1] *Annals of Surgery*, July, 1885.

SOCIETY REPORTS.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, February 25, 1889.

The President, ALEXANDER S. HUNTER, M.D., in the chair.

By special order, the discussion opened at the last stated meeting by a paper by DR. SIMON BARUCH, on

The Value of Water in modern Therapeutics,

was continued by a paper sent by DR. A. JACOBI and read by the Secretary. In this paper Dr. Jacobi reviewed his writings, some dating back over twenty years, recommending and describing the use of water for stimulating the circulation, reducing the temperature, and for its influence on local inflammatory swellings. Among the diseases in which he had given it especial attention, were typhoid fever and diphtheria; he had also used it extensively in various other affections some dozens of years, and twenty years ago succeeded, he said, in getting himself expelled from an institution because he was found guilty of using cold water in the treatment of sick children.

DR. HENRY DESSAU had found water as necessary in the maintenance of the health of children as of adults. There is still a tendency to overfeed infants, and not to allow the stomach time for rest between meals. The use of water as a drink would often allay the thirst of the child and its demand for too frequent feeding. In diarrhœa it relieves dryness of the mouth, and supplies a want arising from loss of intestinal secretions. Some have said it increases the diarrhœa, but such has not been Dr. Dessau's experience. He has also found a plentiful use of cold water as a drink in the nephritis of scarlatina a benefit because of its gentle diuretic and cleansing effect on the kidneys. The bath, he said, is the best tonic we have, and should be used regularly every day in infants four or six months old. In strumous and rachitic children the cold bath daily employed is one of the best protectives against catarrh from sudden changes of temperature. Cold sponging of the chest and spinal column is the best remedy for laryngismus stridulus. He also employs the bath in convulsions in children, usually the cold bath if the convulsions are a part of a fever, and the hot bath when they are due to peripheral irritation, such as an overloaded stomach, dentition, etc. He also employs cold water in the treatment of chronic diarrhœa in infants.

DR. DESSAU said he had formerly published an article in the *New York Medical Journal* on the endermic use of water for allaying pain, and said that it seldom failed. It seems to be best adapted, however, to the relief of pain of nerurotic rather than of inflammatory origin.

DR. AUGUST SEIBERT demonstrated the ease with which the stomach of the infant can be washed out. He uses a soft rubber tube, of small size, allows the water to run in from a graduated measure, say half a pint, and empties the stomach by siphon action. The temperature of the water should be about 102° F. The three disorders in which this treatment is especially useful are, cases of deranged stomach from simple overfeeding; chronic gastro-intestinal or enteric catarrh, and cholera infantum. One washing is usually sufficient in the first class, several in the second combined with proper feeding, and as a rule patients of the third class are also thus cured, Dr. Seibert having saved twenty-six out of twenty-eight cases last summer. No medicines were employed.

DR. VINCENT ZOLNOWSKI read a communication, and first emphasized the importance of a careful inquiry into the patient's previous history, the present condition of his urine, thoracic and abdominal organs, and general health, before applying hydropathic therapeutics. The treatment, he said, varies according to the condition of the circulation, temperature, age, and vital resistance of the person. Water can be used as an antiphlogistic, sedative, excitant, tonic, derivative and solvent, but the two general methods to be observed are its use as an excitant on the one hand, and as a depressant on the other. As an excitant it must be used quickly, the degree of temperature proportioned to the irritability to be overcome—the less the irritation the lower the temperature employed. The depressant method is of two qualities, antiphlogistic and sedative. In the former the heat is withdrawn slowly; but moderate temperatures are used in these cases only until the excitement is allayed. The sedative method is recommended when the nerves are greatly excited. Water used internally as a drink and by enemas acts mechanically.

Dr. Zolnowski cited, among other interesting cases, one pronounced schleroderma by some of the most eminent physicians of New York City, who thought the progress would be rapid to a fatal issue. The use of

water, however, in the form of baths, half-baths, douches, packs, local application of wet cloths, etc., for two years or more, have now overcome the rigidity and pain which had existed in all the muscles of the body, until at present there is stiffness only in the fingers. He also cited a marked example of the morphine habit in a physician, overcome by hydropathy; likewise some neurotic affections due to the lithæmic habit.

Dr. Ralph Parsons gave his experience with water in the treatment of mental and nervous disorders, and said he has found the hot bath of special benefit in maniacal excitement, and uses the warm bath at bed time to overcome insomnia, following it by inunction of the skin. The cold bath should be used with care in the insane, and should not be employed by surprise, for while it has been claimed that some are restored to reason by the unexpected cold plunge, he believes much more harm has been done than would counterbalance the few cases of favorable issue.

Dr. Van Valzah gave the conclusions he has arrived at after seven years experience with hydropathic treatment, especially in gastro-intestinal disorders, such as gastritis and dyspepsia. The use of the water internally in these affections should always be guided by judgment. Cold water promotes upward peristalsis, while hot water produces downward peristalsis. Hot water before meals should be sipped, and taken an hour and a half before. Special caution should be taken when there is a tendency to hemorrhage or during menstruation. A moderate amount of hot water stimulates thirst more than the same amount of cold water in diabetes. The safest general rule to be guided by in the administration of water is the condition of the urine, which should be kept, if the use of water will do it, at from 1.016 to 1.018, and of not too high color.

Dr. Wallian spoke of the principles involved in the use of water in fever and other affections, and remarked that an intelligent treatment would not be adopted until physicians recognize fever as a symptom instead of as a disease. Instead of paying so much attention to the cure of disease by drugs, one should remember that the cause of all diseases is unhealthy surroundings, improper food and drink, or excessive or deficient function of parts of the economy; and the physician should restore the normal circumstances. A most important indication is to prevent accumulation of waste and poisonous products. The use of water will do more than anything else to stimulate the functions of the skin. He deprecates the tendency to rely upon antipyretic drugs in fevers. He thinks cold water will not replace hot water in the treatment of typhoid fever.

Dr. Holcombe gave an account of his own case, that of Bright's disease, supposed to have been far advanced, and of gastric disturbances, and his restoration to health, after unsuccessful trial of various other measures, by the use of flesh diet largely, and of water.

Dr. Hungerford, of Connecticut, said he had had a different experience with the treatment related by Dr. Holcombe, he himself having been a sufferer from gastritis, and was made much worse when he tried the meat diet and water.

Dr. Simon Baruch made some closing remarks, among others that he had found the warm bath of little use in the convulsions of children, for by the time it was ready the convulsion would be over or prove of a nature not to be remedied by the bath. In convulsions due to hyperpyrexia, however, nothing equals the graduated cold bath as a preventive measure.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 7, 1889.

The President, A. L. Loomis, M.D., in the Chair.

Dr. Francis Delafield read a paper on

The Treatment of Acute and Subacute Nephritis,

which, he said at its commencement, was not intended to bring forth any new drug or method, but to determine how plans of treatment and drugs already employed may be applied intelligently in individual cases. A review of works by German, French, and American authors show that there is a disposition at the present time to direct treatment to the symptoms of nephritis rather than to the nephritis itself, and he proposed to view the subject from the opposite standpoint.

It is necessary at the outset to separate acute from subacute nephritis. After a brief review of the pathological changes present in acute nephritis, a disease most frequently seen after scarlatina, diphtheria, and some other acute inflammatory affections, he based on these his views regarding appropriate treatment. In mild cases, he said, no treatment is necessary further than to keep the patient in bed and give fluid diet.

In the more severe cases other treatment will be required—and the first condition to be met is the nephritis itself—and besides that, arterial tension should be lessened. In treating the nephritis itself it is to be observed that although the quantity of urine is small, its quality is good; that the secretion of urine relieves the congestion, and therefore it is better that the kidneys should be active than at so-called rest. It should also be remembered that as long as the congestion continues the quantity of urine will be diminished, and a considerable diminution for several weeks is often well borne; and it is not necessary always to try to get the skin and intestines to do the work of the kidneys. It is wiser, by relieving congestion of the kidneys, to get them to do their work, for the moment this takes place the congestion will still further diminish. To relieve the congestion, cause the blood to collect at the surface of the body by the application of heat to the entire skin; use dry or wet cups over or heat over the lumbar region; use empirically calomel or sulphate of magnesia in small doses repeated at short intervals until the bowels begin to move; use also such drugs as will decrease the arterial tension. It is not expected to bring the urine up to the full quantity as long as congestion continues, but only to the point of securing safety. The febrile movement requires no treatment. Prostration, nausea, and vomiting call for rest in bed and fluid diet. Anemia can be successfully treated only after convalescence sets in.

Cerebral symptoms have received most attention. They accompany contraction of the arteries with increased tension and labored heart action. To overcome the arterial tension, aconite, chloral hydrate, and opium are suitable, and are preferably given in small doses, so that their use can be continued for some time. When arterial tension exists it should be reduced, without waiting for the development of cerebral symptoms.

In opposition to the condition present in acute nephritis, there is, in subacute nephritis, long continuance of the inflammation, but no congestion; the exudation is of the profuse, almost dropsical character met with in other subacute inflammations, as in pleurisy with effusion; and there are permanent changes of the stroma and glomeruli of the kidneys. The interference with the renal function consists in diminution of the solid constituents of the urine. The quantity of the fluid is often increased. The symptoms of the disease are largely due to the effect upon the blood and nutrition of the body. The anemia, dropsy, and loss of strength are prominent features. Contraction of the arteries is absent, or present only at intervals, and the cerebral symptoms are chronic rather than acute. The symptoms of acute nephritis may be present during exacerbations. Only very few patients seem to recover permanently. The conditions requiring treatment are: the subacute nephritis, the changes in nutrition and in the composition of the blood, the dropsy, the condition of the arteries, the cerebral symptoms, and the acute exacerbations of the inflammation.

For the nephritis the patient should reside in a warm climate and lead an out-of door life. If his home is in a cold climate he will have to stay in the house much of the time. Except during the exacerbations he should take as much solid food and fats as he can digest. The excessive use of milk and mineral waters is to be avoided. It is possible that opium and bichloride of mercury favorably affect the nephritis. The anemia is a most important symptom, and requires iron and oxygen, together with massage and relief of constipation. The dropsy may be only an inconvenience, or it may be a most distressing symptom. It often reaches its greatest development with low arterial tension and large excretion of urine. In some cases the treatment of the anemia and regulation of the diet answer also for the dropsy. It is not wise to increase the urine more than is sufficient to enable the patient to excrete his five hundred grains of urea a day. The fluid taken should not exceed the urine passed. In extreme cases of dropsy it is necessary to purge, sweat, puncture the skin, or tap serous cavities.

High arterial tension, should it exist at any time, may be controlled with nitroglycerine, chloral hydrate, or opium. To avoid cerebral symptoms one must watch the amount of urea excreted and the condition of the arteries. The acute exacerbations are to be met as in acute nephritis.

Dr. T. E. Satterthwaite sent a communication, expressing his views on treatment, which were modified in different cases according to the pathological condition existing in the kidney and the lesions elsewhere in the body, which the renal affection might accompany.

Dr. A. Jacobi disapproves of the use of caffeine for cerebral symptoms when high arterial tension exists. Bichloride of mercury, he said, is useful in cases of nephritis when one is unable to distinguish between

the subacute and chronic form; and it should be administered in small doses and continued for months. Subacute nephritis in men who have reached the age in which the arteries become changed is much benefitted by bromides, given in doses of not more than fifty grains a day, and combined with general treatment.

DR. KINNICUTT laid stress upon the value of vaso-motor dilators in arterial tension, such as the nitrites, and said that on theoretical grounds at least he preferred not to give digitalis.

DR. J. WEST ROOSEVELT pointed out the source of danger in arterial tension, and said it is direct only when the arteries are diseased, and acts indirectly by causing a strained heart to do still greater work, and by causing anemia of the tissues through contraction of the arterioles and capillaries. Digitalis in this condition is objectionable, and vasomotor dilators can be used only to tide over temporary great danger. Real treatment consists in reestablishing the function of the kidneys.

DR. J. E. WINTERS regards the amount of albumin in the urine in subacute nephritis as the chief indication of the progress of the case, and he regulates the diet so as to reduce its quantity, giving little albuminoids.

DR. LAURENCE JOHNSON spoke of the excellent results obtained in uremia, manifested in coma and convulsions, from the use of pilocarpin, and said no evil effects had followed in patients of good general condition.

The PRESIDENT said he always took into consideration the age, predispositions, and habits of his patient before commencing treatment. The management called for in children manifestly differs from that called for in adults. In acute Bright's disease the rule calls for rest in bed, room of even temperature, regulation of the diet, moderate purgation. Arterial tension should be reduced by drugs acting on the vasomotor system. This is best effected in his experience by calomel in small doses, accompanied by salines. Further measures consist of irritation over the kidneys and stimulation of the surface of the body.

In subacute nephritis the patient should not be depleted by any method whatever. The nutrition should be improved. Iron in these cases seems to be of little value. If digitalis increased the urinary excretion it would prove of value; otherwise, it would do harm. It is contraindicated in arterial tension. Small doses of opium are of marked value, and can be long continued in patients with weakened heart from accumulation of poison in the system.

DR. DELAFIELD remarked that iron might prove of benefit, and the benefit be manifest not in reduction of dropsy or effects on the quantity of urine, but in an increased number of red blood cells and of hæmaglobin.

The PRESIDENT stated that the Academy had secured a plot of ground, seventy-five by one hundred feet, just west of Fifth Avenue on Forty-third Street, and that it was proposed soon to commence the new building.

REPORTS OF CLINICS.

PENNSYLVANIA HOSPITAL.

MEDICAL CLINIC.—PROF. LONGSTRETH.

Diabetes. Fallacies of Some of the Tests for Sugar. Remarks on Diet and Methods of Treatment.

This young woman, 20 years old, was admitted to the wards three days ago. She is a seamstress. In her family history we find that kidney diseases occupy a very prominent place. Her father and two uncles were afflicted with Bright's, and her mother, also, seems to have been a victim of that disease. The patient says that she herself was fairly healthy until within a year ago. She then began to complain of pain in her back, her bowels were sluggish, and she had some uterine trouble. The commencement of her present illness dates from last July. At that time she first noticed that there was a large increase in the quantity of urine she passed. Thirst was somewhat more frequent and her appetite became enormously sharpened. Five or six meals in the twenty-four hours were barely sufficient to satisfy it. In spite of this heavy consumption of food, her strength rapidly declined. She did not lose much in weight, but she became unequal to even ordinary exertion. Her eyes then gave her some pain, there was a dimming of vision, and she was compelled to relinquish her sewing. These eye symptoms have now, however, passed away. There was a moderate evening rise of temperature and marked flushing after meals. Sleep was disturbed. She did not complain of pain at any time, but there was a more or less constant sense of fulness in the epigastrium.

On admission the girl seemed well nour-

ished. There was no perceptible dryness of the skin. The tongue was clean, but abnormally red. Pulse rapid. No organic lesions could be discovered, examination of the lungs, heart, liver, etc., being negative. The abdomen was full, but not tympanitic. She has now been under observation three days. Immediately after her admission she passed 32 ounces of urine, and during the ensuing twenty-four hours 120 ounces. Its specific gravity was 1042, slightly acid. The acidity of urine varies with its degree of dilution. If, with a normal proportion of salts, we have a largely increased bulk of fluid, the acidity will naturally be much lessened. An alkaline diabetic urine is of unfavorable significance. It indicates as a rule the occurrence of extensive tissue changes, these being principally located in the liver.

In carrying out the various tests for sugar, grave errors, unfortunately, are by no means infrequent. The reduction tests are often rendered unreliable by the fact that urea or urates are sometimes capable of reducing both copper and bismuth. There will form a dirty yellow precipitate which is frequently mistaken for the brighter brick red precipitate which is characteristic of the presence of sugar. Many cases are treated as diabetes which have been falsely so diagnosticated. Some years ago the late Prof. Wallace sent me for examination several specimens of urine which, I found, were free from any trace of sugar. Yet the patients from whom these specimens came, had been placed upon a diabetic treatment on the testimony of a chemist who erroneously thought that he had discovered in them a greater or less quantity of sugar and had so reported to Dr. Wallace.

Of the different tests for sugar, I think that by fermentation is the best. Several apparatuses have been devised for conveniently carrying it out. This one that I show you is very simple and sufficiently accurate (Einhorn's saccharometer). It consists of a bulb connected with an upright tubular arm, one side of which is graduated to the volume of carbonic acid gas in cubic centimetres, while the other shows the percentage of sugar. Its capacity is 10 c.c. A gramme of compressed or any other variety of yeast is added and with a little heat fermentation quickly occurs. With regard to the treatment of these cases, an accurate knowledge of the amount of sugar given off by a diabetic, whether large or small, is not of so much importance, as is a knowledge of the rate by which it is being reduced from day to day. This will indicate most clearly whether the measures you have adopted are or are not proving effective.

In taking up the treatment of diabetes, I wish to call your attention to one of the newer of the many remedies that have been proposed for that disease—nitrate of uranium. It has been used in this case with apparent good effect, the amount of sugar passed having been consideraly reduced. It is given in the dose of one grain three times daily, in pill or powder. An addition of nitric acid is required to effect its solution, and, therefore, this is not a desirable form in which to administer it. I have not instituted as yet any change in the patient's diet. Personally, I disapprove of the very abrupt changes of diet to which these patients are commonly subjected. The diet lists usually prepared for diabetics, are much too rigid, I think, for sudden enforcement. A gradual reduction of the hydro-carbonaceous elements of the food is much more likely to be favorably borne than a sudden deprivation of them. The system suffers more or less shock when it is abruptly deprived of such an important class of materials as these. It is more prudent to strike out the sugars and the purer starches first, and then by degrees to cut them off, if necessary, altogether. Instead of immediately forbidding all kinds of bread, let the patient limit himself for a time to the bran breads. While eliminating the starches it is a good plan to add the fats. These are especially useful when there is any tendency to constipation. Butter and cream may be used in such cases with benefit. The human body requires a certain amount of variety in food. We are not made up of bread and butter, for example, and we can hardly expect, therefore, to maintain a man's health and capacity for labor on any such slender supply of nourishment. My first order, generally, to victims of this disease is, that they shall eat only such vegetables as grow *out* of the ground, and give up those that grow *in* it. Of course, such articles as rice and beans are excepted from this rule, which, I think you will find, is a fairly good one.

Now, let us, for a moment, ask ourselves why this woman should have diabetes. What has occurred to give rise to it? This disease may be dependent upon a variety of causes. In this case, where we detect some digestive disturbance, I think the liver is chiefly at fault. For some time previous, the bowels were inclined to be inactive, digestion was imperfect, and, through defec-

tive assimilation, the normal proportion of sugar in the blood became gradually increased. While, in treating these cases, it is well enough to endeavor to reduce the amount of sugar appearing in the urine, still it must not be supposed when that point is gained, that the disease itself is conquered. Our chief object should be to bring about such a state of the assimilative functions that our patient, with ordinary attention to the special rules of health operating in his or her case, may live comfortably without provoking a return of the disease. The first symptoms complained of by this patient drew our attention to the condition of the abdominal circulation. It was inactive. The liver was too fully charged with blood to perform successfully its secretory functions. In time we should have had obstinate constipation with a marked deficiency of biliary salts in the stools. To avoid this, and, at the same time, to prevent the occurrence of any permanent change in the liver, the portal circulation must be stimulated. The intestinal evacuations should be as carefully examined as to the presence of sugar and bile salts, as are those from the kidney.

In studying the treatment of diabetes in this country we have largely confined our attention to the regulation of the diet. In doing this we have overlooked the claims to consideration of certain natural and easily obtained remedies. In England and on the Continent the waters of some of the springs there, are used almost exclusively in the treatment of this disease. The Carlsbad waters are probably the most efficient of those in common use. We no longer however have to send our patients abroad in order to obtain them. We now receive the natural water in glass, and, in addition, the Sprudel salt in powder form. The Carlsbad water on cooling throws down an excess of salts which it contains when drawn directly from the springs. By artificially warming the water and adding a sufficient quantity of the Sprudel salt, we can restore to it its original proportion of saline constituents. This water should be consumed in moderate quantities only. The best effect upon the liver is not to be obtained by the production of violent catharsis. A comparatively gentle action will quickly show beneficial results in the improved character of the stools. The most valuable constituents of the various laxative mineral waters, are the chlorides. It is when these are present in large quantity that a water acts most vigorously as an hepatic stimulant. The treatment already instituted in this case will be continued. One of the chlorides, if necessary, will be added to the uranium, and the diet will be gradually reduced to the requisite degree of rigidity.

[A few days later, without premonitory symptoms, the specific gravity and the quantity of sugar showed unusual oscillations without the quantity of urine secreted daily changing to a marked degree. A microscopic examination of the urine showed blood corpuscles, and blood and granular epithelial casts, which were not present on the patient's admission.

The terminal symptoms were ushered in by violent abdominal pain, especially in the lower epigastric region. The relief was with difficulty obtained by anæsthetic inhalations and morphia. To this condition succeeded gradually increasing stupor and finally coma, with reduction but not complete suppression of urine. No amelioration was effected by hot-air baths or by pilocarpine hypodermically administered. Death came by respiratory failure.

The *post-mortem* examination showed a swollen fatty liver, much congested, and thick dark green bile in the gall-bladder; the kidneys swollen, with the tubular epithelium opaque and granular; no other organic disease.]

BELLEVUE HOSPITAL, NEW YORK.

GYNECOLOGICAL CLINIC—PROF. POLK.

Pyosalpinx.

Prof. Polk operated for pyosalpinx in a patient, 35 years old, whose chief symptom was persistent pain. The disease was of several years standing.

On opening the abdomen the uterus, tubes and ovaries were found matted firmly together in a circumscribed mass. The left tube and ovary were adherent to the pelvic floor, and also to the rectum. The left ovary was enlarged and contained pus; and the tube was also distended with pus. On the right side, the ovary was very tightly attached to the rectum; the tube was twisted on itself, enlarged from pus, and adherent to the ovary.

By slow dissection with the fingers (the assistant pressing up the uterus with the fingers in the vagina), familiarizing the touch as well as possible with the different tissues, Prof. Polk isolated the left ovary and tube and removed them. The right ovary was so firmly adherent to the bowel that its removal meant almost certain laceration of

that viscus; it was, moreover, hard and evidently contained no pus; it was therefore allowed to remain. The corresponding tube, which was distended with pus, was separated with considerable difficulty from its plastic relations, and removed.

The seat of the operation was flushed with carbolized water; the peritoneum sewed with continuous catgut sutures; a glass drainage-tube inserted in the inferior angle of the wound (to be removed in 24–48 hours, if possible); the fascia, together with the abdominal wall, sewed with interrupted silk sutures; iodoformed lint and gauze laid on, in layers; and a wad of antiseptic cotton applied under a binder.

Prof. Polk remarked that these were the sort of cases he would formerly have refused to operate upon. But of late his views have changed in this regard. And, although the operation had lasted nearly two hours, he believed the patient's chances of recovery about as good as after an ordinary oöphorectomy. He said it would surprise him very much if the patient were to die.

The operation could have been much more quickly performed had the old method of procedure been followed; namely, a longer incision, and the removal of the intestines from the pelvis and placing them upon the abdomen (there covered with hot wet towels), to permit of inspection as an aid in separating the adhesions. But the result would be, almost certainly, a fatal termination to the case. It makes a vast difference whether adhesions are of years' or of months' standing. Old adhesions, such as were present in this case, bind the viscera so closely together that it is almost impossible to distinguish one tissue from another. And it is only by the slowest and most careful procedure that separation may be safely accomplished. Had the right ovary been found to contain pus, he would, nevertheless, not have attempted its removal, but would have laid it open, washed it out, and inserted a drainage-tube into it.

—The *Boston Med. and Surg. Journal*, Feb. 28, says: From a report laid before the Dominion Parliament, it appears that there are at present nineteen lepers confined in the Dominion lazaretto at Tracadie, New Brunswick—eight males and eleven females. During the year two new patients were admitted from the surrounding country. Last year one of the male lepers escaped from the institution to the United States, where he has been located by the Dominion officials.

BOSTON CORRESPONDENCE.

(FROM OUR OWN CORRESPONDENT.)

Progressive Muscular Atrophy.—Supra-pubic Prostatectomy.—Chronic Arsenical Poisoning, especially from Wall-Paper.

BOSTON, March 11, 1889.

At the last meeting of the Boston Society for Medical Improvement, Dr. Philip Coombs Knapp showed a case of progressive muscular atrophy, the most interesting feature of which was the man's age, viz., sixty-eight years, since it is a very rare thing to find this disease coming on so late in life. Reference was made to Gowers, who says that progressive muscular atrophy may come on at various periods until seventy years of age; but during this latter period it is surely very rare. In the case exhibited, the appearance of the disease dated back only about six months. It commenced with a wasting and numbness of the hand. The reaction of the muscles showed the ordinary changes of degeneration. There was no sensory disturbance to be made out, and the probable onset of bulbar disturbance made the case quite clear. There was no difficulty of swallowing and no exaggeration of the reflexes.

Dr. F. S. Watson reported a most interesting case of profuse hæmaturia, in which the operation of supra-pubic prostatectomy was performed, followed by recovery. The patient, whose age was sixty-nine years, had been in excellent health until ten years previously, when symptoms of urinary obstruction due to hypertrophied prostate appeared. The use of a catheter kept him comfortable until about three years ago, when there was blood in the urine due to profuse hemorrhage into the bladder. During the next two years he had two or three other attacks of bleeding, since which they have been more frequent, occurring latterly about once in two months. The attacks were characterized by the loss of a large quantity of blood at the onset, then there was a diminution in the quantity during the following days, until, at the end of about a week, the urine was quite clear. The hemorrhages were independent of exertion and there was no pain, excepting from the retention of clots and over-distention of the bladder. The patient thought he had noticed fleshy bits in the urine, and he stated that an eminent physician in New York had told him that a villous growth could be plainly seen through the cystoscope.

When the patient first visited Dr. Watson he was very anæmic and weak from the effects of a hemorrhage that occurred about a month before. Although examination of the urine for several days failed to detect any positive evidence of a bladder tumor, the hemorrhages were undoubtedly of bladder origin; and, moreover, they were increasing in severity and occurring at diminishing intervals, so that they pointed to a fatal termination. On this account an operation was determined upon, and as the patient had an hypertrophied prostate, together with a large and distensible bladder, it was decided to open the bladder above the pubes. The cystotomy was performed in the manner recommended by Petersen. When opened the inner surface of the bladder was found to be entirely smooth and no villous or other growth was present, except the projecting lateral portions of a greatly enlarged prostate. They were connected by a less prominent median ridge, which, sometime previously, had been perforated by an instrument about half way from its base, and, about this hole were flabby and exuberant granulations. The lateral lobes of the hypertrophied prostate were divided into halves by a blunt bistoury, and each portion was removed to its base by a wire écraseur. The median portion was then removed with scissors and the curette, thus clearing away the granulating surface. The wounds were left open and a large, double, rubber drainage tube was placed in them, reaching to the bottom of the bladder. There was little hemorrhage, either during or after the operation, and it ceased on the fourth day.

This operation was performed three months ago—and there has been no hemorrhage since. With the exception of one or two attacks of heart failure the patient had a good convalescence, and went home at the end of six weeks from the date of the operation. The peculiarity of this case is that the hypertrophied prostate simulated in its symptoms bladder growths.

Dr. Watson thought that an attempt at removal by operative procedure should be made if a diagnosis of a bladder tumor, probably benign, is made. If, however, the tumor is believed to be cancerous, it had better be left to itself if it is not attended with pain; but when there is much pain associated with it, palliative measures by drainage should be attempted. Quoting from his own writings, Dr. Watson said that advice as to operative interference in cases of prostatic hypertrophy should be based upon the following indications: "Necessary, frequent (once an hour), painful catheterization, or urination without the catheter, especially when accompanied by a foul or hemorrhagic cystitis; attacks of retention; and failure to relieve such condition by palliative treatment."

The notes on twenty-five cases in which arsenic was found in the urine formed the basis of a most interesting contribution on chronic arsenical poisoning, especially from wall-paper, by Dr. James J. Putnam. In this paper he said that the time has nearly gone by when fair-minded persons, who have taken pains to investigate the evidence, need to be convinced that arsenical wall-papers and fabrics may be a source of poisoning. The problems of chief importance at present are: how we may learn to recognize with greater confidence the less typical cases; how we may persuade our legislators to give us due protection against this widespread public danger. It has been asserted by our chemists that the dangers from these sources are by no means so great as formerly, but it is evident that they are still far from being obviated. Acute arsenical poisoning has long been familiar to toxicologists, and the subacute form is usually easily recognized; but in the chronic varieties we have only the shadows of these characteristic symptoms to guide us; and, moreover, we may be led astray by the fact that the arsenic may only act by bringing out the latent weaknesses of the patient. The most convincing symptom is neuritis of a sufficiently advanced degree as to cause changes in electrical reaction, diminution of cutaneous sensibility, and impairment of motor power or of coördination. Another important physical sign is a peculiar browning of the skin, especially of the face. Still another important sign is albuminuria, with casts and sometimes blood in the sediment. Cerebral symptoms, such as vertigo, impairment of memory and mental endurance, and rarely epileptiform seizures, are met with in cases of chronic arsenical as in lead poisoning; and they may be suggestive, if not characteristic, if other causes can be excluded.

Dr. Putnam then gave in detail the history of certain cases that had come under his observation, and especially the case of a woman forty-three years of age, naturally of good health and habits. The symptoms pointing toward possible chronic arsenical poisoning, the wall-papers were examined and a large quantity of arsenic was found in two of them, which covered the walls of three rooms. The largest amount was found

in the room used by the patient as a bedroom. A month later the urine of the patient, on analysis, was found to contain a very large quantity of arsenic. After various vicissitudes in cleaning lodgings and wall-papers there was, some months later, a marked improvement in the symptoms; but the continued presence of arsenic in the urine rendered it probable that the poison was still given off from sources still accessible.

A most interesting discussion followed this paper, and among other speakers Dr. Edward S. Wood, the expert in toxicology, said he thought the only way we shall ever be able to get a law restricting the sale and manufacture of arsenical wall-papers, is by being able to bring forward a large number of accurately reported and well-authenticated cases of arsenical poisoning, in which there is no doubt whatever as to the presence of arsenic in the system, and when we are able to state accurately, or at any rate within narrow limits, the amount of arsenic in a wall-paper which has proved dangerous. Dr. Wood thinks it is very difficult to make any accurate statement in regard to the time of elimination of the arsenic. There are certain cases which seem to show that it requires six or eight months for arsenic to be entirely eliminated from the system. The number of sources for the absorption of arsenic is so great that it is very difficult to say when all of the sources of poisoning have been entirely removed. This seems to him a fair explanation of the continuation of the arsenic in the economy in some of these long-continued cases.

PERISCOPE.

Three Remarkable Cases of Actinomycosis.

Bertha reports from Wöfler's Clinic at Graz to the *Wiener med. Wochenschrift*, No. 35, 1888, three cases of actinomycosis, which are interesting both from the seat of the disease and the mode of infection. It is highly probable that in all three a direct infection of the person was received through the actinomyces clinging to grain, while we are usually accustomed to consider animals affected with actinomyces as the agents of the infection.

In the first case, a laborer, 52 years old, in the act of drinking, swallowed the beard of an ear of corn, which stuck in his pharynx. An inflammatory affection of the throat resembling an abscess developed, but apparently healed after surgical treatment; after three years, however, it relapsed and was recognized as actinomycosis. In both the other cases, there was an actinomycotic affection of the hands in persons who handled grain.

Such localized actinomycotic affections on the hand and leg have been described only once hitherto in literature, but in Bertha's opinion are not so very rare; they have often been erroneously regarded as lupoid or tuberculous.—*Centralblatt f. d. med. Wissenschaften*, Jan. 12, 1889.

Relation of Purpura to Malignant Disease.

The causation of the purpura which has been noticed in connection with malignant disease, especially sarcoma, has not yet been satisfactorily determined. With the view of throwing some light on the obscure subject, Dr. Thomas Harris communicates to the *Medical Chronicle*, Feb., 1889, an account of a case in which he had occasion to make an autopsy. The patient was a young man who had died a few hours after admission to the Manchester Royal Infirmary. The body, a fairly nourished one, was markedly anemic. All over the trunk and limbs were a large number of petechial hemorrhages into the skin. In the mediastinum was a tumor the size of a goose-egg, apparently a firm lymphosarcoma. The right pleura showed signs of what appeared to be acute inflammation, and the cavity was distended with a quantity of thin blood. Petechial hemorrhages were present in the stomach, intestine, peritoneum, and pericardium. The spleen was increased in size, weighing eight ounces, and was of a pale-red color. No growth except the one in the mediastinum was evident to the naked eye, and the chief change from the normal presented by the organs throughout the body was one of anemia.

After giving some of the cases observed by the late Dr. Hilton Fagge, he discusses the theories as to the causation of the purpura, especially in his own case. He rejects the view that there might have been minute developments of sarcomatous tissue, with growths made up of embryonic cells at points which became the seats of the petechiæ. He also is disinclined to believe that the malignant disease had caused a profound alteration of the blood, analogous to that found in pernicious anemia, and that the hemorrhages were due to this. For a

microscopical examination of the liver, and especially of the kidneys, showed that in those organs there were emoboli, composed of minute masses of tissue similar in appearance to that composing the mediastinal growth. Although he found no emboli in the vessels of the skin, he nevertheless regards the purpura that occurred in his case as due to emboli lodging in the small vessels.

Prevention of Phthisis.

Dr. J. E. Squire read a paper on prevention of phthisis before the Epidemiological Society of London, January 9, 1889. He said that phthisis took its place with bronchitis as one of the most frequent causes of death in this country, and its importance is the greater as it carries off its victims during adolescence and adult life. The discovery of the bacillus tuberculosis allows us to place phthisis in close relation to infectious diseases, toward the control of which preventive medicine has already done so much; and experiments have proved that tubercular disease can be communicated from affected to healthy animals. That consumption can be communicated from person to person has long been a popular belief, and cases were referred to by Dr. Squire which seemed to prove it. Phthisis depends primarily upon the reception into the body of an infective particle or micro-organism; but a lowered vitality of the tissues places them in a more favorable condition for the development of the bacillus, and thus constitutes in the individual a predisposition to the disease. The bacillus may gain entrance into the body (1) by inoculation through a cut or scratch; (2) by means of the genito-urinary mucous membrane; (3) by the product of conception, and by direct hereditary transmission; (4) by the mucous membrane of the alimentary canal; (5) by the mucous membrane of the respiratory tract, and by the air-cells of the lungs.

The possibility of infection through the alimentary tract assumes importance from the prevalence of tuberculosis in animals which are used as food, and from the experimental proof of the infectiveness of the milk of tuberculous cows. The necessity for careful inspection of cattle kept for dairy purposes and for precautions in using the milk, and possibly also the flesh of diseased animals was pointed out. But as infection through the respiratory system is more potent and probably more frequent than by any other means, and as the risk of infection is intensified by close contact and by the crowding together of sick and healthy, the necessity for free ventilation is apparent, and becomes more so when the predisposing causes are considered. These are: (1) hereditary predisposition; (2) influence of air and sunlight; (3) age and sex; (4) effect of certain occupations; (5) influence of locality and habitation, which includes the consideration of climate, temperature, altitude, nature of the soil, density of population, and the condition of dwelling-houses, both as to their construction and the overcrowding of the inmates; (6) influence of certain diseases, local and general. Indoor and sedentary occupations, as well as those in which much dust is inhaled, largely influences the prevalence of phthisis. Much of this amongst persons following such occupations is preventable. Here again the basis of all preventive measures is found in efficient ventilation. The home-workers—for example, tailors—are more difficult to deal with than the factory hands; but public workrooms, in which men can find conveniences for their work, may lessen the evils of the present state of things. With regard to climate, its influence in the causation of phthisis is probably infinitesimal as compared with the effect of density of population. Overcrowding is of two kinds: the aggregation of buildings on a confined area, with insufficient open space around and between houses, and the crowding together of persons within the houses.

By-laws should be enforced regulating the width of streets, the amount of open space around houses, the minimum height of rooms and size of windows, and efficient inspection of new houses should be carried out before they are allowed to be occupied. Tenement houses might be licensed to hold a certain number of inmates, and be liable to inspection. As many diseases producing general debility thereby predispose to tuberculosis, general sanitary and hygienic measures, framed for the control of these, tend to diminish the amount of phthisis in a community; and seeing that insufficiency of food, of fresh air, and of exercise, continued anxiety and mental depression, and dissipation, must be reckoned amongst the predisposing causes, the philanthropist might assist the sanitarian. The fundamental principles which must form the basis of any successful attempts to diminish the prevalence of phthisis are (1) to provide a sufficiency of fresh air in and around dwellings and workplaces; and (2) to endeavor

to improve the resisting power of the individual by physical training during the period of growth and development, and by exercise and recreation alternating with the work of maturer age. As the effects of phthisis are handed down by hereditary transmission from parent to child, any causes which tend to increase tubercular disease amongst the adult members of a population must be regarded as tending to produce a progressive deterioration of race. It is, therefore, to the interest of the community to allow no time to be lost in commencing a systematic attack against the preventable causes of phthisis.—*British Med. Journal*, Jan. 26, 1889.

Spinal Hemorrhage with Pyrexia.

Before the Staffordshire Branch of the British Medical Association, Nov. 30, 1888, Dr. Arlidge related a case of hemorrhage within the sheath of the spinal cord, attended with high temperature. The patient was a well-built and well-nourished man, but of drunken habits, 44 years old. He was admitted into the North Staffordshire Infirmary on September 19 last, having four days previously been suddenly seized with complete loss of power over his legs. The attack was preceded for a day or two by a slight feeling of *malaise*, but he had never been laid up with serious illness, and never had syphilis or rheumatism, nor had he suffered any hurt to the spinal column. There was complete motor paralysis of the legs, and some weakness in the arms, where too formication and numbness were experienced. Sensation was normal, and the legs were painless and their reflexes abolished. His only complaint was of dorsal pain. The bladder was distended, and, prior to admission, had been emptied by the catheter, but there was no dribbling of urine. Some rhonchi were noted in the upper part of the left lung; heart healthy; bowels confined for four days; the cerebrum undisturbed. The first temperature taken was 103.6°, but the next day it fluctuated between 105° and 106°, and rose to 107.4° the day preceding his death, on September 26, and was accompanied by some delirium. A post-mortem examination revealed a copious hemorrhage within the meninges of the spinal cord, extending downward from the last cervical vertebra for about six inches. The blood was coagulated. No ruptured vessel was found in the cord itself, and no cerebral disease, although the dura mater was very adherent to the skull. There was no fracture of the spine, and no caries of any vertebra. Dr. Arlidge called attention to the suddenness of the onset of the paralysis and the high temperature, the former phenomenon being characteristic of spinal hemorrhage, whilst the latter was an altogether exceptional occurrence. Other points of interest were the stillness of the paralyzed limbs, their freedom from spasm, and likewise from hyperæsthesia and anæsthesia alike; and, lastly, the absence of any physical injury, or of evident antecedent spinal lesion, to account for the production of the hemorrhage.—*British Med. Journal*, December 22, 1888.

An Unusual Cause of Asthma.

Professor Leyden had recently under treatment a young woman who suffered from extremely irritable cough, with some pain in the neck. The diagnosis he made was that of bronchial catarrh combined with asthma. The remedies he prescribed were of little use. He then sent the patient to Schwalbach, but this also proved of no avail. It was then proposed that she should spend the winter in a warm climate, when she appeared one day with the gratifying intelligence that she was now quite well. Upon drinking a cup of tea that morning she was seized with an exceedingly violent fit of coughing, so that she thought she would have been choked. Suddenly, however, she coughed up a small portion of bone, and having got rid of that her cough was at an end. It seems that some eight or nine months previously she swallowed a piece of bone while eating, which caused a most violent attack of coughing. She immediately sought the aid of a medical man, who passed a probang, but found nothing. Ever since that time she had suffered from the cough and from severe pains in the throat, for which she ultimately consulted Professor Leyden. It is impossible to say exactly where this splinter had lodged, but having sharp points, these were probably embedded in the mucous membrane of one of the bronchi. A somewhat similar case is mentioned as having occurred under the care of Professor Bardeleben in the Charité, Berlin, where a case of persistent hoarseness was found after death to be accounted for by the lodgment of a coin (a one-mark piece) below the right vocal cord.—*Lancet*, Feb. 16, 1889.

—Diphtheria is prevalent in the neighborhood of Macungie, Pa.

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HEAD-DOWNWARD PRESENTATION.

The remarkable fact that in about ninety-six per cent. of cases of labor the fœtus is born head first has attracted attention since the days of Hippocrates, and doubtless long before. Nor is it less striking that in about seventy-five per cent. of labors the child should assume one relation to the mother—that the fœtal occiput should be in relation with the left anterior segment of the mother's pelvis. The oldest known theory in explanation of these facts is that of Hippocrates, which supposes that the fœtus is originally head uppermost in the uterus, where it is held by bands proceding from the umbilicus until the seventh month, the legal time of labor, when these bands break, and the fœtus, from its own weight, turns a somersault, and so places itself head-downward. Ambroise Paré asserted that the fœtus instinctively placed itself head-downward because delivery is easiest in that position. Paul Dubois, after satisfying himself that the fœtus does not present head downward because of gravity, since the centre of gravity of the fœtus is not situated in the head, but at a point in the trunk near it, returned to the theory of Paré, that the fœtus, by instinctive or voluntary determination, makes certain movements until it finds the position most favorable for its sojourn in the uterus, and for its delivery from it. Simpson denied that the fœtus is able to make voluntary movements; and declared that the attitude of the fœtus is produced by reflex movements induced by a lack of relation between the contour of the fœtal ovoid and the containing uterine walls; that after the seventh month of pregnancy both the fœtus and womb are ovoidal in form, the wide end of the fœtal ovoid being at the breech, the wide end of the uterine ovoid at the fundus; and hence that irritation and reflex movements ensue until corresponding diameters of each come into relation with those of the other, when irritation ceases and the presentation becomes fixed and definite.

Matthew Duncan still insists that the attitude of the fœtus *in utero* is produced by the laws of gravity, and he offers elaborate explanations of various facts which apparently conflict with this view. Credé, Kristeller and others attach much importance to the intermittent contractions of the uterus throughout pregnancy, as a cause of the attitude of the fœtus. Pajot considers the form of the matured ovum, the dimensions of the uterus, and the fact that it is alternately in a state of motion and repose, as the determining causes of the attitude of the fœtus.

Other and less celebrated theories have

been offered, until, as Charpentier says, there are explanations enough, but unfortunately there are objections to each.

In the *Edinburgh Medical Journal*, September and October, 1888, Dr. James Foulis contributes an interesting and elaborate paper on the cause of head-downward presentation and the first cranial position. He reviews the theories of Simpson and Duncan, points out the objections—more especially to the theory of Simpson—and rejects them both. The principal objection which is urged against the theory of Simpson is his assumption that the uterus has a fixed and definite form independent of the form of the fœtus—spheroidal before the sixth month, and ovoidal after that time.

Dr. Foulis asserts that the head-downward presentation of the child *in utero* is the necessary and ultimate consequence of the continued extension of the child's lower limbs against the most resisting parts of the uterine sac. Before the seventh month, and to a certain extent after this time, when the fœtus has a considerable amount of mobility within the uterus, extension of the child's legs must drive the head along the surface of the uterine wall; and since the feet meet with the firmest resistance from the maternal pelvis, the ultimate consequence of the movements must be to bring the head downward, which position is maintained in the later weeks either by the straitened room of the fœtus limiting its mobility, or by the head entering the true pelvis as a ball in a cup.

Dr. Foulis maintains that the first cranial position is produced by the continued extension of the child's lower limbs against the most resisting part of the uterine sac at its upper part—namely, that which lies in the right hypochondrium, under the liver—after the child has assumed the head-downward position.

The arguments of Dr. Foulis are certainly ingenious, and are apparently based on that foundation of medicine, anatomy; but we are not convinced that his explanations are truer or his arguments better than are those which he seeks to overthrow. It seems plain that the attitude of the fœtus in its relations to the mother, is produced by no one cause, but that it is the result of the combined action of several causes; these are: the form of the matured ovum, the dimensions (its shape being variable) of the uterus, gravity, the intermittent contractions of the uterus, the varying amount of liquor amnii, and the movements of the fœtus—all of which usually act in harmony to bring about the head-downward presentation of the fœtus. Other presentations occur under unusual conditions, as when the relation of the diameters of the uterus is altered by flaccidity of its walls, or by deformity of the pelvis; when its axis is altered by relaxation of the abdominal parietes; when the form of the fœtus is abnormal, as in hydrocephalus; or perhaps when an ill-timed, vigorous, extension of the child's legs produces other than a head presentation, which altered presentation becomes permanent owing to the straitened room of the fœtus, which limits subsequent mobility.

The writer's argument that the first cranial position is most frequent because the child's lower extremities meet with more resistance, in extension, in the right upper segment of the uterus—owing to its location under the liver—than in the left upper segment, and hence that the dorsal region of the child is pushed over to the left, is not so happy. How on this ground can it be explained that the position second in frequency is the very reverse of this—occiput to the right and posterior? The usual explanation is more satisfactory.

But while his conclusions may not be accepted, Dr. Foulis has presented an ingenious explanation of the result of the movements of the child in utero; and his scholarly paper has called the attention of the profession anew to the subject of the accommodation of the fœtus—one of the most interesting problems in physiology.

HOSPITAL TREATMENT.

There is an impression, quite general among the poor, that entrance into a hospital as a patient involves the risk of becoming the subject of experimentation by the physicians and surgeons connected with the institution. This is especially the case in regard to hospitals connected with medical schools; and very recently an English writer who takes the name of Æsculapius Scalpel has done what he could, in a book called "St. Bernard's," to confirm this impression where it exists, and to create it where it has not already taken root, by describing the experiences and observations of an assistant in a large hospital. The scenes described in this book are too real and too like the truth to be scoffed at as wholly untrue, although the way in which they are used is unfair and unjust. There can be no doubt that the author is one who has walked the wards of an English hospital, and has witnessed occurrences which seemed to him cruel and unfeeling. No one who has seen much of hospitals in any land can deny that operations are sometimes performed in them with apparently less regard for the good of the patient than the eagerness to seize opportunities for demonstration. Nor can any one who has studied physical diagnosis much have failed, we believe, to have seen cases in which persons weary and worn with disease have been subjected to examinations too repeated and too prolonged for the benefit of students.

It is not altogether amiss, then, for those who pursue science ardently to be reminded that those whom they find interesting subjects of investigation have feelings and rights which ought to be respected; but it is far from right for an author to sanction the idea that hospital doctors, as a rule, disregard these feelings and rights. In this country, certainly, the men who have charge of hospital patients are not generally unfeeling; and those who are under their care usually enjoy the blessing of skilful treatment combined with humane consideration to an extent which more than counterbalances the unavoidable disadvantages of their situation.

BEQUESTS OF ISAIAH V. WILLIAMSON TO MEDICAL CHARITIES.

In the will of the late Isaiah V. Williamson, of Philadelphia, who died March 7, 1889, leaving an estate valued at about ten millions of dollars, the following bequests of interest to medical men were made: To the Pennsylvania Hospital $100,000; $50,000 each to the Episcopal Hospital, the University of Pennsylvania and the University Hospital; $40,000 each to the Children's Hospital, the Women's Hospital, the Orthopædic Hospital, and the Woman's Medical College. The testator expressed the desire that these sums should be invested by the recipients, and he directs that the income shall be expended for the establishment of free beds only. By this it is probable he meant the maintenance of free beds, as the invested funds would serve to establish them.

One of the items of this will directs the investment of $300,000 by trustees, who are directed to pay five per cent. of the income —which would be about $500 annually—to the Philadelphia Lying-in Charity. Three per cent., or about $300 a year, is to be paid to the Philadelphia Dispensary. Two per cent., or about $200 a year, is to be paid to the Northern Dispensary, and a like amount to the Howard Hospital (a dispensary) and to the Church Dispensary at Southwark—a portion of Philadelphia.

These bequests, with others to non-medical charities, make up a principal sum of a million dollars, and within a few months Mr. Williamson established a trust for a training school for boys, with a gift of $3,000,000.

In this way it will be seen that he has furnished another striking example of the way in which wealthy men in this country often use their wealth for the good of their fellow-men—a thing which has no adequate counterpart in any country in the world.

MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The Local Committee at Newport, R. I., decided some time ago, after consultation with some of the officers of the American Medical Association, to change the date of the next meeting of the Association, to be held at Newport, to June 25–28, because that date offered better opportunities for the entertainment of the members. Dr. Horatio R. Storer, Chairman of the Committee of Arrangements, has issued a notice stating that the general Sessions will be held at the Music Hall, Bellevue Avenue, adjoining the Ocean House, and those of the Sections at the Newport Casino, which is also close at hand, and which, for the first time in its history and as an act of courtesy, is permitted by its Governors to be occupied for other than the purpose for which it was built.

The hotels at Newport are, in order of their nearness to the place of meeting, the Ocean House, the Clifton House, the Germania Hotel, Pinard's, Hartmann's, the Aquidneck, Brayton's, the Kay Street House, the Perry House, the Park House, the Sherman House, the Cliff Avenue Hotel, and Bateman's.

The approaching meeting of the American Medical Association occurs nearly synchronously with the two hundred and fiftieth anniversary of the settlement of Newport. The city authorities, Dr. Storer says, will probably fittingly recognize the presence of the National Medical Convention at such a moment, the more cordially since the virtual founder of the colony, certainly its principal leader, John Clark, was a physician. The Mayor of the City was one of the incorporators, in 1879, of the Newport Sanitary Protection Association.

Members of the Association or others who intend to be present may get any information they may desire from any member, preferably the Chairmen of the various sub-committees, which are constituted as follows:

Of *Finance*, Drs. F. H. Rankin, H. G. MacKaye and G. D. Hersey; of *Reception*, Drs. H. E. Turner and G. M. Odell; of *Halls and Accommodations*, Drs. C. F. Barker and M. E. Baldwin; of *Entertainment*, Drs. S. H. Sears and T. A. Kenefick; of *Invitations*, Drs. W. C. Rives and G. T. Swarts; of *Registration*, Drs. H. Ecroyd, Jr., and W. S. Sherman; of *Exhibits*, Drs. C. A. Brackett and E. P. Robinson; of *Transportation*, Drs. P. F. Curley and W. H. Palmer; of *Section Work and Programme*, the Chairman, Dr. H. R. Storer, and the Local Secretary, Dr. Valentine Mott Francis. All of these gentlemen may be addressed at Newport, R. I., except Dr. Hersey, Dr. Swarts and Dr. Palmer, who live at Providence, R. I.

Members of the Association desiring to read papers should address the Chairman or Secretary of the various Sections, who were named in the REPORTER, March 2, p. 287.

It is hoped that the next meeting of the Association, which will be its fortieth annual meeting, will be a large and successful one, and that it will serve to cement anew the bonds of sympathy which ought to unite the profession in all parts of the United States.

PRESERVATION OF CHLOROFORM.

As many of the accidents which follow the administration of chloroform as an anæsthetic, are believed to be due to impurity, it is important to know the best means of preserving it from change after it has been manufactured. This subject has recently been discussed by M. Marty, in the *Archives de Médecine et de Pharmacie Militaires*, and he suggests that chloroform should be kept in bottles of yellow glass, with ground glass stoppers, which have been thoroughly cleaned and dried, and that to the chloroform should be added one thousandth part of its weight of pure and absolute ethylic alcohol.

—John L. Adams, who was undergoing a long fast, died March 13. He had entered upon his twenty-seventh day of fasting, and was greatly emaciated.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

THE YEAR BOOK OF TREATMENT FOR 1889. BEING A CRITICAL REVIEW OF THE PRACTICE OF MEDICINE AND SURGERY DURING 1888. 8vo, pp. viii, 344. Philadelphia: Lea Bros. & Co., 1889. Price, $1.25.

Those who are familiar with the admirable predecessors to this little book will be glad to know that the volume for 1889 is now issued. It contains a brief summary of the progress in therapeutics during 1888 and appears very promptly after the conclusion of the year it covers. If it were nothing but an uncolored summary, it would have its advantages, but it is far more; for the articles are prepared by men well known in this profession, and specially fitted for the task; and they bear the stamp of the individuality of each. In regard to the book before us, it is enough to say that it is calculated to maintain the excellent reputation of the series to which it belongs, and we wish it success equal to its merit.

EXPLORATION OF THE CHEST IN HEALTH AND DISEASE. By STEPHEN SMITH HURT, M.D., Professor of Clinical Medicine and Physical Diagnosis in the New York Post-Graduate Medical School and Hospital, etc. Small 8vo, pp. xiii, 206. New York: D. Appleton & Co., 1889. Price, $1.50.

The author of this book, in his preface, states that it has been prepared in response to requests from members of his classes for a work which should embody his views; and his book indicates his familiarity with the wants of persons studying physical diagnosis. It is plain, practical and sensible The style is pleasant, the teaching is sound, and the whole is beautifully illustrated with wood-cuts and photo-engravings. In looking over the book, we note with satisfaction that the author does not fall into the error of speaking of heart murmurs as if they were pathognomic, taken by themselves. This is a point of great importance in physical diagnosis; for serious and damaging blunders can be made if heart murmurs are not studied in connection with other signs of disease or health

In other respects this book will be found a trustworthy guide, and it may be heartily commended to the attention of our readers.

PAMPHLET NOTICES.

[Any reader of the REPORTER who desires a copy of a pamphlet noticed in these columns will doubtless secure it by addressing the author with a request stating where the notice was seen and *enclosing a postage-stamp.*]

226. BELOW SEA-LEVEL. NATURE'S PNEUMATIC CABINET—HIGH ALTITUDES OF SOUTHERN CALIFORNIA. By WALTER LINDLEY, M.D., Los Angeles, Cal. From the *Medical Record* and the *Southern California Practitioner*. 12 pages.

227. DOUBLE CHORIO-RETINITIS WITH PARTIAL DEGENERATION OF THE OPTIC NERVE, ETC. By CHARLES A. OLIVER, M.D., Philadelphia. From the *Trans. of the Amer. Ophthalmological Society*, 1887. 6 pages.

228. THE RADICAL CURE OF VARICOCELE, ATTENDED WITH REDUNDANCY OF THE SCROTUM, DEMONSTRATED BY TIME. By MORRIS H. HENRY, M.D., New York From the *Journal of the Amer. Med. Association*, Nov. 10, 1888. 12 pages.

229. THE HISTORY OF THE FILARIA SANGUINIS HOMINIS, ETC By WILLIAM M. MASTIN, M.D., Mobile, Ala From the *Annals of Surgery*, November, 1888. 42 pages.

230. INFLATION OF THE STOMACH WITH HYDROGEN GAS IN THE DIAGNOSIS OF WOUNDS AND PERFORATIONS OF THIS ORGAN. By N. SENN, M.D., Milwaukee, Wis. From the *Medical News*, August 25, 1888. 11 pages.

226. Dr. Lindley's first paper calls attention to that part of San Diego County in California known as the San Felipe Sink, or the Conchilla Valley, a basin about thirty miles wide and one hundred and thirty miles long and depressed below the sea-level, at its lowest point, about three hundred and sixty feet. This he thinks would be a sort of natural pneumatic cabinet and good for phthisical or asthmatic persons. Dr. Lindley's second paper describes the natural advantages of the San Jacinto Mountains in Southern California as a resort for persons affected with diseases of the lungs. The descriptions of the beauty and grandeur of these mountains are interspersed with incidental allusions to persons who have been benefited by residing among or on them.

227. The case described by Dr. Oliver was that of a boy, 12 years old, who in addition to the trouble indicated in that part of the title given above, had very curious lymph extravasations upon the retina of one eye and floating free in the vitreous humor of the other. The excellent description of these conditions is very much enhanced in value by two beautiful chromo-lithographs prepared from water color sketches made by Dr. P. N. K. Schwenk.

228. Dr. Henry is well known as an earnest advocate of excision of a portion of the redundant scrotum for the cure of varicocele—an operation first proposed by Sir Astley Cooper, revived by Dr. Edward H. Dixon, in this country, and adopted by Dr. Henry about 30 years ago. Dr. Henry has now operated in this way fifty-nine times, and thinks as highly of the operation as ever.

229. Dr. Mastin's pamphlet contains a full and scholarly summary of our knowledge of the filaria sanguinis hominis, with especial reference to the observations in regard to it which have been made in the United States, and its relation to chylocele of the tunica vaginalis testis. It is illustrated with three woodcuts, contains a table of thirteen cases seen in this country and concludes with a full bibliography of the literature of the subject.

230. Dr. Senn's pamphlet describes his experiments to prove that the method of inflating the intestines, which he demonstrated so brilliantly at the last meeting of the American Medical Association, could be applied to the stomach, to detect perforations, together with the account of a case in which he successfully applied it to the human subject. This paper is not only very interesting, but also a valuable and instructive contribution to the literature of surgery.

CORRESPONDENCE.

Compound Fracture of the Skull.

TO THE EDITOR.

Sir: Burton Unkerfer, 13 years old, was kicked by a horse on the left side of his forehead over the eye. The wound was one and one-half inch long by three-fourths of an inch wide, and extended through the skin, bone and brain-membranes. The edges of the bone around the wound were almost as smooth as if they had been cut with a sharp instrument. The fragments of bone were driven through the membranes into the brain, and were completely covered with clotted blood and pulpified brain matter. The wound looked as though the bone had been removed. I began to examine the wound, and soon found that I could not do so satisfactorily without the use of an anæsthetic. I therefore called in consultation Dr. J. N. Ketcherside, who administered chloroform; and we then proceeded with great care to explore the wound and remove the fragments of bone. We did not quit until we were perfectly satisfied that every piece of bone had been removed. In all we removed seven pieces, the largest of which was about three-fourths of an inch long by one-fourth of an inch wide. All clots and contused tissues were carefully removed. We then allowed the patient to rally from the anæsthetic, dressed the wound with a solution of chlorate of potash, and left it open for twenty-four hours, covered constantly with cloths wet in the solution. I left bromide of potash and ergot to be taken every two hours, aconite to control fever if it should arise, and opiates to control pain if any should be felt. I visited him next day and found him doing well. The wound was therefore closed. At the time of closure the brain and edges of the membranes were protruding considerably, but I pressed them back and closed the wound up entirely, except one small place left open for drainage. Nothing of any morbid nature interfered after this except a small fungus growth, which was removed by gentle washings.

The patient entirely recovered, and at this time, two years since the accident, has all his former characteristics unmodified. All that is left to show that he was once hurt is the cicatrix. I attribute the success obtained in this case to the thoroughness with which the fragments of both bone and flesh were removed, and also to good after-treatment. One object should always to be in view in such cases, viz., to leave nothing in the wound to irritate the parts, and not be in a hurry to get through.

Yours truly,

S. M. HUNTER, M. D.

Hope, Kansas,
March 9, 1889.

Abortion, with Placenta Previa.

TO THE EDITOR.

Sir: At 9 o'clock on the evening of Feb. 10, 1889, I was called to see Mrs. S., 19 years old, five months advanced in a second pregnancy. During the preceding two weeks she had been troubled with feelings of general discomfort, but no symptoms of a definite nature occurred until the day on which I saw her, when irregular pains in the back and pelvis, accompanied with moderate hemorrhage, had been going on for several hours. Without making an examination, I informed her of the threatening miscarriage, and ordered one quarter grain of morphine, to be repeated in forty-five minutes if the pains and hemorrhage persisted. Cold compresses were applied to the hypogastrium, and the thighs were raised on pillows.

At 2 o'clock the following morning I was hastily summoned to see her, and found her experiencing hard expulsive pains with a small amount of hemorrhage. Examination revealed a bag of waters of considerable dimensions, low in the vagina. Having no suspicion of anything being abnormal, I ruptured the membranes without attempting to diagnosticate the presentation, and was considerably surprised to find nothing presenting, although an effort was made to crowd the womb down by external pressure, with negative result. Feeling assured that a continuance of the contractions would force the fœtus down sufficiently to enable me to diagnosticate the presentation in a short time, I sat down to await results. In less than three minutes blood began dripping from the bed. A hasty examination now disclosed an os dilated to the size of a silver dollar, with a placenta centrally implanted over it. A small portion was detached, and through the aperture I could distinguish nothing, owing to the high position of the womb. The pains were weak, but sufficient to produce severe flooding at each contraction, and the patient was rapidly losing strength, being almost pulseless in five minutes from the time when the membranes were ruptured. I hastily administered alcohol, ammonia, and ergot, and sent for assistance, meanwhile making pressure

on the cervix with my fingers in the vagina, thus checking flooding to a considerable extent. On arrival of assistance, in the person of Dr. Smith, the vagina was tamponed with good results; the flooding ceased, strong contractions set in, and in fifteen minutes an 8-inch fœtus was extruded. The placenta was delivered almost immediately afterward, and the case has since progressed well.

The peculiarity in this case was the large bag of waters low in the vagina in front of the presenting placenta.

Yours truly,

WILLIAM S. CARY, M.D.

Gothenburg, Nebraska,
Feb. 21, 1889.

NOTES AND COMMENTS.

Treatment of Scabies.

In a paper on the Increasing Prevalence of Scabies, with Remarks on Treatment, Dr. James C. White, Professor of Dermatology in Harvard University says that in sulphur, styrax or Peruvian balsam, and naphthol we have three effective, sufficient parasiticides. The action of the other substances employed so generally in combination with them, the alkalies, tars, gritty powders, etc., is simply auxiliary, and addressed to the solvent or mechanical removal of the epidermal coverings, or crusts, which protect the animals and eggs in the burrows and pits against the active agents; or these agents are intended for the relief or prevention of the inflammatory processes, which always accompany the disease, or may be provoked by the injudicious use of the remedies employed in its cure. It is in a proper knowledge of these latter, most essential, points of treatment that the successful management of scabies chiefly consists. It should never be forgotten, he says, that every case of advanced scabies is mainly an eczema, developed, in extent of surface affected and intensity of lesions, by individual peculiarity of the cutaneous tissues under the influence of scratching; and that the changes in the skin due to the direct action of the parasite are always but a small practical part of the same. The mere destruction of the animal in all its phases may be, therefore, only a part of treatment, although always the first and essential step. It is important therefore, first, that in the choice or combination of remedies those should be selected which shall destroy the animal with certainty and quickness, and yet shall not aggravate the existing inflammatory changes in the skin; and second, that they should not be used too long.

Dr. White says he generally employs in dispensary practice the following method, and that it is applicable in every case, however extensive or severe may be the accompanying inflammatory processes. He prefers a mixture of the three active agents (a scattering shot), and combines them in this way.

℞ Flowers of sulphur . . . . . ℥ ii
β-naphthol . . . . . ℥ i
Balsam of Peru,
Vaseline . . . . . aa ℥ i
M.

This quantity, he says, is generally sufficient for the cure of a single case. The patient is directed to rub a third of this mixture into the whole surface of the body, from the neck downward, at bedtime. He is especially told to rub it between the fingers and upon the penis, and that it must be applied to the back by some other person. He is to sleep in old garments, that the bedclothes may not be soiled. In the morning the skin is to be thoroughly washed with soap and water. The use of the bath in this class of patients is of course out of the question, nor is it essential. The ointment is to be used in this way for three consecutive nights. Generally the itching ceases almost wholly on the first application. The patient is also told not to use it after the third night, unless, after waiting two more nights, there should be a decided return of the pruritus here or there, in which case the salve is to be rubbed into such parts only, and only for two nights running. For very young children he omits the naphthol in prescribing the ointment, on account of its occasional irritating properties.

In cases in which the accompanying eczema is severe, it is well to require an inspection of the patient again on the sixth or seventh day, when it will sometimes be found necessary to direct a course of treatment addressed to this residuary condition. He warns the physician that a very frequent mistake at this stage is the conclusion that the appearances, or accompanying itching, are signs of the continued activity of the original affection, and the consequent renewal of the use of the stimulating parasiticide, which only aggravates the existing process. He has often seen cases of post-scabietic eczema in dispensary and private practice, which have been kept going for months by such errors of judgment. It must also be remembered that in prolonged

cases of itch the cutaneous nerves have acquired, as it were, the habit of demanding to be scratched, and seem to require it for a long time after every visible sign of the disease has disappeared, and these cases of surviving pruritus are often mistaken for remaining evidence of the original affection, and mistreated accordingly.

Directions are always given that on the first night of the treatment all the clothes which have been worn next to the skin,—shirts, drawers, and socks, and the sheets and pillowcases last slept in,—shall be thoroughly boiled before being used again. Gloves should be baked or destroyed. It is to be assumed that every bed-fellow has the disease also, and requires treatment as much as the patient. Every member of the family should, he says, also be inspected and treated in the same way, however slight in character or extent may be the indications of the affection. He says he has seen the disease keep up a continued and alternating existence in a large family for a year, during which period nearly all its members underwent treatment one or more times, simply because they were not treated simultaneously. He has recently directed five members of a private family to be thus generally treated, although only two of the household at that time presented any positive indications of the presence of the disease.

As to the more general control of the affection in its well-nigh epidemic state of prevalence, it is only by drawing the attention of the profession to this activity, and to the best methods of destroying it in individual instances, that it may be hoped to accomplish anything.

The Microbe of Diphtheria.

The announcement of the discovery of the microbe of diphtheria by MM. Roux and Yersin of the Pasteur Laboratory, has led somewhat prematurely to sanguine hopes that the disease will now be amenable to prophylaxis by inoculation. The micro-organism of diphtheria, however, has been before now discovered by such investigators as Oertel, Klebs, and Loeffler. Nevertheless, but little fruit in the direction of successfully combating this highly fatal disease has yet accrued from these researches. We await with interest the full details of this latest inquiry, and shall be glad to see to what extent MM. Roux and Yersin have advanced beyond the stages reached by their predecessors in this field.—*Lancet*, Feb. 9, 1889.

Parasites and Monkeys.

At the last meeting of the Academy of Natural Sciences, of Philadelphia, Mr. Ives stated that, while examining a specimen of a monkey, the sooty Mangabey, which recently died in the Zoological Garden, he had found in the omentum and distributed through the lungs, peritoneal cavity and elsewhere a curious parasite, allied to the mites and ticks. It had also been found in the mandril, the Macaque and the Chacma baboon. The animals present curious modifications, fitting them for their parasitic existence. The monkeys in which these parasites occur are all old world species, and it becomes an interesting question whether they were developed in the Zoological Garden or before the capture of the infested animal.

In answer to an inquiry the President stated that there is no marked correspondence between the parasites of man and those of the higher apes. As far as he is informed the same species of tape worm does not occur in man and monkeys, although Trichocephalus dispar and the round worm Ascaris lumbricoides have been found in both.

New Amber Beds Near Dantzig.

The district of Heubode, near Dantzig, has suddenly become the scene of considerable speculation and of a good deal of activity in consequence of recent discoveries of amber made there. The main region of the shores of the Baltic, where amber has hitherto been found in paying quantities, is between Pillau and Grosz Hubenicken, some distance to the east of the present find. The attention of the authorities was first called to the matter some years ago by a person who offered 1,800 gulden (about $720) annually for the exclusive privilege of mining amber in the district. For some reason it was not accepted, and the matter was dropped until very recently, when the offer was renewed, the sum being increased to 6,000 gulden. It was accepted, and the parties have gone to work on a three years' lease at these figures. After the lease was executed the authorities received an offer, from another person, of 1,000 gulden monthly for a period of six years, or a cash in hand price of 72,000 gulden for the same privilege. These figures indicate that somebody is confident of finding amber in large quantities in the new field.—*National Druggist*, March 1, 1889.

The Bacillus of Diphtheria.

Dr. George M. Sternberg, in a lecture delivered at the Hoagland Laboratory, Brooklyn, Jan. 26, reviews the investigations made by different bacteriologists to determine whether or not there is a specific bacillus of diphtheria. In conclusion, he says that the experimental evidence, with reference to the etiological *rôle* of Loeffler's diphtheria bacillus is rather more satisfactory than that which has been adduced in favor of the relation of Eberth's bacillus to typhoid fever, or Koch's "comma-bacillus" to cholera; and that most conservative bacteriologists seem inclined to the view that it is in fact the specific infectious agent in this disease.—*Brooklyn Med. Journal*, March, 1889.

Cocaine in Angina Pectoris.

Professor Valerian G. Lashkevitch, of Kharkov, tried (*Novosti Terapii*, Dec. 1888, p. 440) hydrochlorate of cocaine internally, in the dose of one-third of a grain, three or four times a day, in sixteen cases of angina pectoris associated with cardiac or vascular disease, or, as in some of the patients, angina apparently caused by excessive tobacco smoking. The results obtained justify the author in regarding cocaine as a genuine specific remedy for the affection. The attacks of angina were invariably relieved even on the second day of the treatment, and ceased altogether and permanently in the course of a few days. Recovery takes place still more rapidly, when inhalations of oxygen gas are simultaneously employed.

A Fatal Prescription.

The recent death in Germany of a child as the result of taking a prescription containing an incompatible and dangerous compound, viz., chlorate of potash and iodide of iron, deserves the attention of all practitioners. The iron was precipitated in the form of the sesquioxide, and all the iodine liberated. The following formula will illustrate the chemical changes which took place in the medicine: $2FeI_3+KClO_3=Fe_2O_3+KCl+4I$.

Creasote with Cod-liver Oil and Saccharin.

Dr. Seitz gives the following formula in the *Therap. Monatshefte*, 1889, No. 48:

Creasote	2.5 parts
Cod-liver oil	200 "
Saccharin	1 "

Dose: A tea to tablespoonful, 1 to 3 times daily for adults; for children the amount of creasote should be less.

Bill for Adulteration of Food Defeated.

The House Judiciary General Committee of the Pennsylvania Legislature decided on March 8, to report negatively the bill advocated by the Society to Prevent Food Adulteration. The bill was aimed to prohibit harmful and deceptive and regulate harmless and necessary adulteration of food and drugs. Ex-President Kline, of the Philadelphia Drug Exchange and of the National Wholesale Druggists' Association, and Dr. Robbins, President of the Pharmaceutical Board, were before the committee in opposition to the bill so far as it related to drugs. They said it would cause heavy and unnecessary expense, and admit inspectors to rooms where they could learn valuable business secrets. Besides, they thought there was already enough law on the subject to protect the people, although it might be well to increase the penalties for violation. President Ammerling, of the Anti-Adulteration Society, vainly tried to convince the committee that the bill ought to be passed.

Athletic Sports and Gymnastics at the University of Pennsylvania.

It is stated that the opinion has prevailed among the medical students of the University of Pennsylvania that it is impossible for them to devote any time to athletic exercise without lowering their class standing and failing in their examinations. But a number of medical students who are in training for the crews have formed an "Oarsman's Quiz Club," and every day, after they have taken their pull, they meet and quiz each other on the subjects which they must prepare upon for examination.

There has been some difficulty experienced in having the department of physical education established on an equal basis with the other branches as regards compulsory attendance and ranking in class. When the department was first introduced at the University it was said that hours would be assigned for gymnasium work just as for recitations or lectures. An attempt was made to introduce this feature into the regular curriculum, but it never succeeded for lack of interest and support in different quarters. Dr. Leuf, the Director of Physical Education, has now succeeded in having regular gymnasium hours assigned to the two lower classes, and it is said that the Trustees are endeavoring to secure a permanent instructor, so that the gymnasium may be open regularly for several hours every day.

NEWS.

—The Trustees of the University of Pennsylvania have just purchased from the city three properties, amounting in area to nine and a quarter acres, in the vicinity of the University, paying $149,800.

—Dr. S. Weir Mitchell, of Philadelphia, has written a story of life in the lumber regions, which the Lippincotts will publish. Its title is *Far in the Forest.* The work is said to be an outcome of personal observations among an interesting class of people.

—The Philadelphia *Ledger*, Feb. 23, 1889, reports that a young woman died in a dentist's chair in Norwalk, Ohio, on Feb. 21. She had taken chloroform preparatory to having teeth drawn, and it caused her heart to cease beating. It is thought she was affected with heart disease.

—The Woman's Medical College of Pennsylvania held its thirty-seventh annual commencement March 14, and conferred the degree of Doctor of Medicine upon 36 graduates. Dr. Clara Marshall, Dean of the College, presided, and the address to the graduates was delivered by Dr. James B. Walker.

—At the meeting of the College of Physicians of Philadelphia, March 6, a report of a committee, setting forth the importance of "a rigid inspection of meat and milk," was adopted and a committee was appointed to act with other bodies with the view of obtaining legislation to accomplish the desired ends.

—The *British Med. Journal*, Feb. 9, publishes the conclusions arrived at by the physicians who made the autopsy on the late Crown Prince Rudolph, of Austria. There seems to be no doubt that he shot himself, and the conditions of his brain and skull justify the supposition that he was mentally deranged.

—Dr. Alvan Talcott, of Guilford, Conn., who has given $25,000 to endow a professorship of Greek at Yale, is one of the oldest alumni of that university, having been graduated in 1828. He is past eighty years old, still practises medicine, and reads Homer daily with far more earnestness than ever in his undergraduate days.

—On March 4, Dr. A. L. Loomis was examined in New York City in the suit brought against him by the widow of the late Dr. Miller, which was referred to in the REPORTER March 9. The manuscript of the essay said to have been written by Dr. Miller was in Dr. Loomis's handwriting, and Dr. Loomis testified that Dr. Miller's work on the essay had consisted in engrossing some tables and copying them afterward for publication; he did not revise or do any original work upon the essay.

OBITUARY.

AUGUSTUS F. TAYLOR, M.D.

Dr. Augustus F. Taylor, an ex-Mayor of New Brunswick, N. J., and one of its oldest residents, died March 6, at the age of eighty years. He was educated at Rutgers College, and was one of the oldest graduates of that institution. He studied medicine and began its practice nearly sixty years ago. He sailed for California in 1849, and amassed a fortune. On his return he resumed the practice of his profession, and continued it until eighteen years ago, when he lost his eyesight.

PHILIP D. MARSHALL, M.D.

Dr. Philip D. Marshall, of Reading, Pa., died March 5, of pneumonia, at the age of fifty-six years. He was a graduate of Jefferson Medical College, Philadelphia, and was a surgeon for a number of years in the United States Army, having been stationed for a long time at Jefferson Barracks, near St. Louis, Mo. He was an intimate friend of Dr. Joseph Pancoast, and was the first surgeon to perform the operation of tracheotomy in Reading. He was prominent in his profession, and was the author of many valuable papers on surgery.

CHARLES E. L. WAGNER, M.D.

Dr. Charles E. L. Wagner died in Hanover, Germany, Thursday, March 7, 1889. Dr. Wagner was born in Hanover in 1823, was graduated at the University of Göttingen in 1847, and entered the Hanoverian army in the same year. During the Schleswig-Holstein war, of 1848–1849, he served as surgeon in the army, and in 1855 he entered the British army as surgeon of the Third Regiment — British German Legion—serving during the Crimean war.

In 1860 Dr. Wagner came to the United States and took up his residence in Wilkes-Barre, Pennsylvania, where he remained, practising medicine, until 1874, when he retired from active practice and spent most of his time abroad, returning however to this country every few years. He had already engaged passage for his return from Germany to this country when he was stricken with apoplexy and called away suddenly to a better and everlasting home.